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Treaties, Spirituality, and Ecosystems

American Indian Interests in the Northern Intermontane Region of Western North America

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Treaties, Spirituality, and Ecosystems

American Indian Interests in the Northern Intermontane Region of Western North America

Social Assessment Report
for the
Interior Columbia Basin Ecosystem Management Project
112 East Poplar Street
Walla Walla, WA 99362

August 1995

FINAL REPORT

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I. First Nations of the Region

Introduction

As a contribution to the Interior Columbia Basin Ecosystem Management Project, this report provides an introduction to current American Indian interests in the northern intermontane region of western North America and assesses the prospects of tribes pursuing those interests into the 21st century. A primary goal of the Federal interagency project is to develop scientifically sound and ecosystem-based management strategies for forest and range lands under stewardship of the Forest Service and Bureau of Land Management in the greater Pacific Northwest (Fig. 1). As an integral part of the project, a scientific assessment is designed to characterize and assess socio-economic and biophysical conditions throughout the interior Columbia River basin and certain adjoining regions, and to identify emerging issues that relate to ecosystem management. This report, more particularly, contributes to the assessment phase of the project. Given the remarkably broad nature of tribal interests in the region, this report addresses a comisserately wide range of topics. For this reason, the term "cultural resources" as commonly used by agencies over the past two decades has been broadened in meaning. "Cultural resources" in the context of the Interior Columbia Basin Ecosystem Management Project refers to native species (plants and animals), inanimate materials, landforms, archaeological sites, ancestral grounds and other components of the physical environment associated with American Indian traditional use of the region.

Other project-related assessment reports may also address the same topics of interest to tribes, but frequently in more biophysically technical detail. For example, in regard to native vegetation, a key topic in this report from a socio-cultural perspective, other assessments entail: assessing the occurrence of native species and species groups in relation to general landforms; analyzing relevant biogeographic factors and historic habitat ranges; constructing geographic gradient models relating species occurrence to habitat and environmental conditions; and, identifying habitat and environmental variables useful for predicting the occurrence, distribution, abundance, or trend of species and species groups. Most Project assessments are based on habitat and environmental factors rather than empirical data from actual population demography.

Three basic aspects of this report should be clarified. First, this report attempts to convey non-linear thinking into linear concepts. This translation is driven by the legally compelling need to incorporate traditional American Indian interests into mainstream Federal agency land management activities. Secondly, Indian interests are clearly pervasive, complex and sensitive in the region. Therefore, a more detailed systematic accounting of tribal interests for each tribal government entity within more limited geographic areas, particularly in regard to public land management issues, would be more appropriately performed as individual administrative units of Federal agencies pursue subsequent land use planning exercises. These more localized efforts should also provide tribes a more prominent role in describing tribal interests and assessing potential effects posed by proposed actions. This direct involvement is more difficult and awkward on such expansive and "distant" projects as ICBEMP that include interests of a large number of groups. Thirdly, and perhaps most important, this report necessarily assumes an "us

versus them" perspective, contrasting in general terms the traditional tribal world view with the Federal agency "culture." Obvious variation within both domains is largely overlooked in this relatively brief assessment. Both "entities" are composed of individuals living on the same geograhic landscapes, operating within familiar socio-economic constraints, and facing many of the same choices affecting the social, economic and environmental health of the region. It may be said this report addresses "institutional" behavior more than individual beliefs and behavior. In addition, tribal concerns and expectations of public land management goals over the next few decades do not differ significantly from many agency viewpoints. As has been pointed out, there is little conflict between tribes' interests in protecting watersheds and the agencies' interests in the management of public lands.

For purposes of this assessment, the northern intermontane region includes all of the interior Columbia River basin south of the United States-Canadian boundary (which includes present-day Oregon and Washington east of the Cascade Mountains, most of Idaho, and portions of western Montana and Wyoming, northeastern Nevada, and a small northwestern corner of Utah) and those portions of the Northern Great Basin and upper Klamath River watershed that lie north of the southern Oregon boundary. The region consists of a physiographically and geologically diverse region. Exemplifying the diversity are the adjoining subregions of the mountainous, forested Okanogan Highlands and the sagebrush-covered Channeled Scabland within the Columbia River basin itself. Equally diverse is the character of Indian tribal governments with interests in the region. Those considered in this report are listed in Table 1.

Table 1. Number of enrolled members and reservation acreage* for each tribal government as of 1995.

Tribe	membership rolls (number of persons)	reservation (acres)
Burns Paiute	274	11,945
Couer d'Alene Tribe	1,290	66,550
Colville Confederated Tribes	7,992	1,068,428
Fort Bidwell Paiute	163	3,334
Fort McDermitt Paiute	816	151,663
Kalispel Tribe	327	4,465
Klamath Tribes	2,914	312
Kootenai Tribe	110	1,924
Nez Perce Tribe	3,170	103,886
Northwest Band of Shoshoni	411	0
Salish & Kootenai Tribes of Flathead	6,792	617,611
Shoshoni-Bannock of Ft. Hall	3,761	493,066
Shoshoni-Paiute of Duck Valley	1,691	289,819
Spokane Tribe	2,121	133,113
Summit Lake Paiute Tribe	117	10,861

Umatilla Conderated Tribes	1,529	84,664
Warm Springs Confederated Tribes	3,468	646,731
Yakama Nation	8,435	1,010,758

* "reservation acreage" refers to lands owned or controlled for tribal purposes that includes various types of land status such as allotted acreage, lands held in trust by the United States, tribally owned lands, and privately owned fee lands.

Recognition of the breadth of American Indian interests and the trust responsibilities of the United States government to protect those interests has shaped the following discussion. The subject of Indian interests in public land management over such a vast area is incredibly complicated due to the complex cultural and legal histories of numerous independent population groups. To address this broad topic in such a brief forum, as this assessment report, information came primarily from the following sources:

(1) Direct contacts with tribal members and staff has been the most important and informative. Technical resource and land use information, including information on current trends in use and needs, has been offered over the course of the past year by various individuals through meetings and written documents. Reliance on non-Indian interpretations of tribal activities with minimum, if any, direct contact with the affected tribes has been a common and valid criticism from tribes on past federal projects. It is hoped this report attempts to take a step in the proper direction to remedy that problem. This tribal source of information, though knowledgeably opportunistic rather than scientifically systematic in nature, is also complementary to the existing scientific literature, thus providing some degree of verification of the scientific literature from the subject source itself. Indian persons have been sought who could provide as comprehensive a knowledge of the subject and project area as feasible within the short time frame.

(2) Secondly, a scientific literature search was conducted, focusing on anthropological, ethnohistorical, and ethnobotanical publications and unpublished reports. This body of data is large for the region and produced almost exclusively by non-Indians, primarily within academic institutions. Researchers and other knowledgeable persons have also offered additional, unpublished information through informal contacts, particularly regarding ethnohistory. A few tribal histories do exist written by American Indians and/or sanctioned by the tribes.

(3) A third substantial source of information which addresses various aspects of traditional culture and current governmental and subsistence issues is the numerous treaties, executive orders, Congressional statutes, and case law.

(4) Tribal government documents, consisting primarily of tribally approved land use plans, adopted tribal resolutions relevant to resource and land use activities, and unpublished

technical papers addressing resource research activities by tribal staff have been collected. This information provides another source of data on desired land use goals and needs. Unfortunately, this form of information is far from comparable among the large number of tribal entities having interests within the region.

Before discussing specific tribal interests in the region, certain aspects of Indian communities and worldview should be clarified. These factors are discussed through the remainder of this section of the report. Section II briefly summarizes the lengthy and complex legal history for the region which establishes why Indian peoples have interests that government agencies must take into account. Section III discusses those interests, followed by Section IV which identifies issues of today surrounding those interests, and examples of current tribal management strategies employed to address the issues. Finally, Section V explores means to assess implications posed by Project scenarios and future EIS alternatives to tribal interests.

Nature, Ecosystems, and Science

The worldview of persons living within tribal communities with long-term traditional interests in the northern intermontane region varies considerably; however, collectively they often pose a marked contrast to that of the present-day economically dominant "white" culture of the Pacific Northwest as frequently expressed through activities of the public agencies. Relevant to the Interior Columbia Basin Ecosystem Management Project are these fundamental variations in the perception of "nature" and "science" (see Evernden 1992).

In brief, nature is intrinsically spiritual as sacredness is embedded in all phenomena, not something forced on the landscape. As commonly described in anthropological literature, traditional American Indian perceptions are that nature possesses a symbolic content more significant than the visible material content (Murdock 1980: 144). Special insight is required to interpret nature's hidden symbols. In addition to the material content, the environment is populated by spirit beings, some of which are identified with inanimate objects, others with wind, clouds, thunder and fire. Humans gain access to these powers through spirit quests (Spier 1930: 249; Walker 1991: 105). Acquired power is very personal and should not be revealed to others (Murdock 1980: 145; Relander 1986: 41).

This worldview has fundamental implications when addressing issues concerning lands and natural resources. First, attachment to a traditional cosmological perspective is maintained that in turn produces sacred emotional attachment to native plants and animals and to natural landform features. The belief that people are one of thousands of species in a single, common universal cosmological system is basic and contrasts to the more detached science perspective of Federal agencies. For example, in this sense, the agencies manner of implementing the Endangered Species Act is seen as invalid. Though the act addresses management of habitats, it is often applied by agencies on an individual species basis rather than applied to the well-being of all on an ecosystem basis.

The interconnected nature of species relationships leads to another fundamental traditional

belief in that relationships are based on reciprocity. Fear is held by traditionalists that continued human interference with nature at levels of the past several decades will generate forms of supernatural retribution. Therefore, a threat to the lands is perceived as a threat to the entire culture. Despite past tribal economic development activities and future economic growth goals, a common fear and belief in Indian country, particularly among traditionalists, is that non-Indians have wantonly and indiscriminately taken more from the land than they have replaced; in a sense, acting as a dysfunctional component of the system.

A third belief important through the history of U.S.-tribal relations is that if a person leaves their ancestral lands their spirit will be lost forever. Therefore, ties to specific localities are maintained despite socio-economic hardships and barriers introduced. Similarly, for many aspects of the environment, if "locations of sacred sites are divulged, not only will the sites lose their power, but the individual responsible for divulging the information...will suffer serious physical harm" (Treitler 1994: 23). Such consequences apply as well to other forms of information besides locational.

In contrast to the above three points, "science" is based on "observations of nature's *surfaces*" (Ingerson 1994: 377). A fundamental condition of science is that the "facts" of nature be visible to anyone, not confined to an "intellectual elite" (Evernden 1992). Science has thus been perceived as "a fundamentally social activity that allows individual human beings to verify each others' perceptions"; a democratic way of interpreting the natural world (Ingerson 1994: 377). A "resource" to the western technological science worldview has value for its physical properties while to the Indian traditionalist it is also a representation of cultural continuity, often irreplacable in time and space. This contrast in perception affects agencies' interpretations of cultural sites, perhaps missing or at least under valuing important factors of significance.

As science becomes "institutionalized in laboratories, it loses touch with the local knowledge of everyday experiences" (Kloppenburg 1991: 53). For American Indians, knowledge of the environment is also gained through experience, not observation alone. Consequently, nature is perceived by land managing agencies as an "external, biotic realm," whereas, the tribes' image of nature is a "shared life-world" (Winthrop 1994: 28). In sum, science is considered to be but one way to look at the landscape (DeWalt 1994: 124). In an even narrower perspective, "science" constitutes one model used by a subset of modern U.S. society, with economics, politics, and ethics posing alternatively driven perspectives.

In light of the above considerations, an inherent difficulty (not to mention appropriateness) exists in describing the nature and degree of importance of the various aspects of the intermontane landscape to American Indians. Whereas the natural world is viewed as a "sacred" cyclical relationship of patterns by Indian traditionalists, European cultures consider the natural world in a linear, scientific manner with decision-making involving hierarchical objective thinking. Therefore, English words such as "subsistence," "food," "medicine," and "use" have fundamentally different meanings. All traditional foods may also be "referred to as medicine given their healing qualities for both the body and spirit" (Keith and Corliss 1993). The following statement highlights problems in assessing traditional cultural interests as "resources":

> By treating an Indian medicine area as analogous to an owl nesting site or a patch of wetlands, its *cultural character is ignored. The significance* of medicines...does not accrue simply from the existence of particular physical substances at particular sites alone; rather, it is inherent in the culturally patterned relationship between the substances, the pristine settings in which they occur, the traditional knowledge of their properties and modes of use held by particular individuals, and the appropriate actions and prayers with which they are collected (Winthrop 1994: 26).

Therefore, what appears on the surface to be "simple food gathering is something much more profound for traditionalists" allowing persons to "define their role in society and provides a link with their ancestral heritage...(constituting) a powerful communion with the forces that create and sustain life on our planet" (Corliss and Keith n.d.). Consequently, culture as a whole is the primary concern for sustainability, not just the individual species or certain habitat types. It is frequently stated that in sustaining and preserving traditional lifeways, the people look back seven generations and look ahead seven generations for measuring the potential implications of potential land uses.

As described by Indian traditionalists, American Indian cultural traditions and the biological systems of which "the peoples" are a part were highly integrated prior to non-Indian settlements with a stongly imbedded belief in communal ownership of the land which persists today. Land, community and religion are integrated as one whole in which all natural entities participate in a "unity of balance" (Deloria 1994: 201). The sacred is embedded in all natural phenomena. It is commonly believed that "each form of life has its own purposes, and there is no form of life that does not have a unique quality" (Deloria 1994: 88). Consequently, with spirituality related directly to the land, impacts to the natural landscape are also impacts to the community's self-identity. Tribal communities contend that "standard Western methodology for cultural assessment cannot be a true reflection of (Indian) experience... (since) all resources are identified clearly within our beliefs, traditions, customs, and legends... (and) cannot be set down on paper in bits and pieces" (Yakima Agency 1993: I-2). The Federal agency process of reductionism in the environmental assessment process largely ignores complex interactions. In addition, much of the spirituality, and therefore significance, associated with the resources is traditionally passed through generations as hidden sacred knowledge. As stated by Deloria (1994: 68), "the nature of revelation at sacred places is often of such personal nature" that it inhibits revealing related locations.

Thus, Land is sacred as it has sustained Indian society through the ages and water is all important, being the "giver of life." Some see water and food as "energies you use in following the path to the other world" (Dick 1991: 10). Spirituality is expressly interwoven in the individual's "whole life". A unity of life is perceived in which "all living things share a creator and a creation" (Deloria 1994: 90).

This attachment to land and water means that sacred sites are not confined or precisely located, and are numerous, diverse in form and not geometrically patterned in contrast to Judeo-Christian religion which creates its own sacred spaces (Walker 1991: 103). For example, Spier

(1930: 100) stated, "There is hardly a mile of Klamath Territory but has its mythical reference." The number of spirits are described as indefinitely large. Accessing this sacredness is a major rite goal in Indian cultures.

A key element of American Indian spirituality is that all animals and plants in the ecosystem share with humankind intelligence and have moral rights and obligations, a perception labelled "animism" in European thought. Humans can change into animals and birds and vice versa. In this way species can communicate and learn from each other. This power extends to the inanimate as well, such as plants, rocks, and natural features (Spier 1930: 93). As Hunn (1990: 232) states, "Animism extends the moral benefits of human society to the entire local ecosystem... One's life literally depends upon maintaining whole this socio-ecological web...Animism suggests a rather different view of the world of nature and of the human place." In a collective sense, Indian peoples consider themselves as guardians or custodians of the Land, rather than owners. American Indians are considered privileged to be able to eat the traditional native foodstuffs and owe thanks to the spirits of the natural world for the variety and wealth of plants and animals.

In sum, American Indians are linked to their environment by careful observation, economic calculation, ritual monitoring, and mythical explanation (Hunn 1980: 14). Natural resources are an important economic necessity with their use primarily orchestrated through myth and ritual associations. Taking of plants is often accompanied by prayers and occasional offerings to the plant spirits to show respect. Ceremonies and religious stories honor the spirits of the fish, animals and plants and teach against overuse. Plants and animals played important roles in the world views of the peoples as reflected in myths and tales. Many species of mammals, reptiles, birds and occasionally insects and fish account for creation of earth and people, establishment of seasons, and setting of food preferences and taboos. For example, salmon has the supernatural power to change form, transform other physical things, and perform superhuman acts (Meyer 1983: 43). They illustrate proper and improper social behavior (Fowler 1986b: 96). Such beliefs relating to the immortality of certain species is common. As Ames and Marshall (1980: 31) have stated, "In the Nez Perce view, people were economically successful because they lived exemplary lives based on 'religious' principles...So by living correctly people found themselves in regions where resources were available."

Such culturally-based perceptions of nature and science must be taken into account when applying scientific assessments to traditional cultural activities and governmental regulatory processes to cultural landscapes. One implication of differing worldviews between agencies and tribal governments is that agencies' data collection is commonly performed in the language of a natural or social scientist, not sufficiently accomodating the general complexity of human behavior or particular cultural sensitivities. The remedy for this shortcoming is the maintenance of more continuous contact and more substantial employment of American Indians. In this context, use of the concept of "ecosystems" essentially serves as a social "tool for holistic and empathetic thinking about nature" that can help bridge the cultural gap (Ingerson 1994: 376).

Given the above considerations, use of the term "subsistence", in reference to broad

geographic traditional Subsistence Ranges, implies more than simply harvesting food. It also implies the gathering of medicines, crafts and industry-related materials, commercial uses, and attachment to ancestral places on the landscape, often in the appearance of landforms. The following sections describe other traditional aspects of Indian communities in the region.

Tribes, Bands, Settlements, and Families

Though having a specific anthropological meaning, the term "tribe" has been historically used in the region to describe every range and degree of organization of American Indian population groups, including linguistic stocks, dialect groups, single settlements or people inhabiting particular geographic areas. Commonly, the term "tribe" has been loosely used for groups of people simply because they spoke the same dialect and did not fight among themselves (Ray 1939: 9; Walker 1985: 10). Despite such perceptions of larger political entities, local autonomy was the rule within the region with individual settlements serving as the basic political unit, if not individual families (Ray 1939: 4). In actuality, the population is fluid where identification of peoples non-Indians has been crude and inexact, having reference to specific subsistence areas or geographic features rather than set groups of people (Ray 1939: 7). A strong sense of social unity is present, however, with individuals related to a number of local groups through immediate ancestral affiliation. The Indian people themselves have traditionally considered such local ethnically mixed groups as social units, a "people" (Ray 1939: 7).

In fact, traditionally each settlement (village) was composed of several families usually wintering together and changing year to year (Ray 1939: 14). This pattern of community autonomy continues today with relatively free movement of individuals and families from one community to another across the region. Traditionally, intermarriage among members of friendly villages geographically not far separated was exceedingly common; still today this results in relatives being distributed over a number of communities (Ray 1935: 116). The more geographically distant groups are the less similar is the sequencing of their traditional resource use schedule, and the less those groups socially interact with one another (Ames and Marshall 1980: 29). This pattern has often developed in direct response to localized resource availability. Consequently, marriages are based not only on geographic proximity, but close economic relations. Kinship ties have often served as the primary basis for social and religious activities involving larger groupings of people (Ray 1939: 9). The politically autonomous groups (settlements, villages and bands) have tended to have ethnic unity in language, subsistence, material culture, social organization, religious beliefs and values (Chalfant 1974a: 150; Suphan 1974a: 110). Settlements would be linked by peaceful trade, intermarriage and participation in each other's ceremonies, and festivals.

A hierarchical ordering of group associations is evident with each grouping bound by blood, geographic proximity, general association, mutual interests, economics, common country and/or dialect. These relationships become more diffuse on the continuum from immediate local groupings to the entire northern intermontane region. Points on the continuum have been given the common labels of "extended family," "village," "band," "tribe," and "native peoples" throughout the region. Each level is composed of a loose association of the more narrow

groupings, such as "band" associations of autonomous villages and individual families (Walker 1985: 14).

As a result of the above factors, the process of naming larger social groupings beyond settlements or communities is somewhat arbitrary - based on linguistic rather than political factors as much as anything - using the name of a particular settlement projected to the larger group (Walker 1985: 13). These larger perceived population units were all nameless from the peoples' point of view. As Ray (1939: 8-9) observed, "The people themselves had no such common names and no common organization". Historically used names were usually derived from single village names (Nespelem, Kittitas) or French-Canadian and English derivation (Colville, Columbia) or derived from local stream names. A number of tribal or band names are Anglicized forms of the native names, such as the Colville tribes of the Methow, Chelan, Entiat, and Wenatchi (Ray 1975: 11). Traditional names, such as Nimipu for Nez Perce, are used less today (Ray 1936: 116). To further confuse the record, Lewis and Clark largely acquired their Salish names from Shoshonean and possibly Sahaptin informants (Chalfant 1974b: 33). Also, the same geographic grouping of people in early history were often referred to by different names or the name assigned to one group applied to other groups in the same general subregion of the Columbia Basin (Fuller 1974: 33).

"Tribal" names have become fixed through the Federal recognition process, through treaties, creation of Indian Reorganization Act (IRA) governments, and other more recent governmental interactions. Therefore, "tribe" in the modern-day sense is used for administrative and political purposes. Though "tribes" are commonly plural in titles (e.g., Confederated Tribes of the Warm Springs Reservation), the groups are treated politically as a single tribe (Cohen 1971: 268).

Reference to "ethnic groupings" has often been used to avoid the formal political connotations of the terms "village," "band," and "tribe." Indeed, the distinguishing of geographically associated groups occurred prior to federal government and non-Indian settlement influences. As an example, the Spokanes considered themselves distinctive from Kalispel, Coeur d'Alene, Sanpoil and Colville groups at the time of first contact (Anastasio 1974: 145). Another example is the identification of two major linguistically-based Salish groups: northeastern (Flathead, Pend d'Oreille, Upper Spokane, and Kalispel) and central (Lower Spokane, Colville, Sanpoil, Nespelem, South Okanogan and Columbia) (Ray 1936). Adoption of the reservation system, however, led to extensive population concentration and redistribution (Walker 1985: 14).

In terms of land use then, population groups who used many common subsistence areas were heterogeneous, comprising families from many ethnic groups with local autonomy the rule (Ray 1939: 7). These small nuclear groups were held together by family ties and common residence, having long term standing and greater stability than the named task groups. But the mobility during the food gathering season caused even these units to break temporarily into independent camps and at other times to associate in large informal congregations for common harvest of resources (Liljeblad 1960: 17). This is consistent with the highly mobile nature of subsistence quest. Of basic importance here is recognition of the ethnic groups represented by

each present-day governmental entity and their accustomed range of annual activities.

Alliances have traditionally formed at times - leading to extensive "continual interaction" throughout the region commonly with a socio-economic emphasis on commerce and trade, but often at times of conflict with others as well (Suphan 1974a: 89). Currently, these alliances take the form of the Columbia River Inter-tribal Fisheries Commission, Affiliated Tribes of the Northwest, and other tribally-sponsored organizations. Traditionally, resident groups would band together only for certain specific purposes in certain seasons; such organization would become non-existent when no need for cooperative efforts persisted (Chalfant 1974c: 181). These multiple village alliances would normally compose ethnic, social or linguistic units, and, at times, political. As stated above, these alliance were based on common habitat, culture, language, and blood ties (Suphan 1974b: 31).

As described above, people often travelled in "inter-ethnic aggregations." Such groupings were traditionally led by heads of families and noted warriors, with a "spokesman" selected to serve as council chairman and moderator, but with no real political clout (Suphan 1974a: 101). Decisions were normally reached by majority vote, but with unanimous support always sought. Confusion was introduced when non-Indians considered these spokesmen as "chiefs" having decision-making authority. Other specialists were also chosen at times to be in charge of some temporary activity (ceremonies, campsite selection, hunting, fishing, etc.). Qualifications of a "chief" or leader include: sound judgement, skill in arbitration, truthfulness, generosity and kindness to fellow villagers - basically one having respect and influence (Suphan 1974b: 26). Subsistence forays were led by persons highly skilled in types of hunting or gathering, familiar with the area and with strong spirit helpers (Chalfant 1974a: 113). Prestige gained from hunting and fishing skills is an important social ranking factor. In sum, traditional leaders relied more on the power of persuasion and persistence than direct political power (Anastasio 1974: 156). With the establishment of governments under the Indian Reorganization Act and the adoption of corporate charters or constitutions, a new leadership system was added, at times conflicting with the traditional system.

In sum, there are a number of ways of viewing relationships among Indian peoples of the northern intermontane which question the validity of named groups at all. The function of the names have also altered through time. For instance, "Spokane" originally derived from a settlement location and became attached to a linguistic unit but also has been used for ethnic reference and has become now a governing body formed by several groups called the Spokane Business Council. In referring to groups, one must choose between (1) treaty designations, (2) ethnographically defined bands, (3) historical identifications, and (4) 20th century established governmental entities, if not other alternatives. Tribal names continue to change today consistent with tribes' efforts to further establish their identities, both internally and with the non-Indian world (Churchill 1992).

The diverse Indian population of the region persists today in that each "tribe" or grouping of "tribes" has its own particular history, value system, government, language and social ties that give each community its own identity. The numerous reservations in the region (see Fig. 2)

provide the "core of Plateau Indian cultural continuity...a physical, social, and economic refuge" (Hunn 1990: 274). In addition, many off-reservation resident Indians maintain a strong commitment to traditional culture through reservation-based activities and associations.

Ownership and Boundaries

The fluidity of population and reliance on extended families has substantial implications regarding "ownership" of land and resources. Aboriginal title has never been considered fee title by United States courts, but rather resting on prior use and occupancy (Cohen 1971). Generally, most people were free to hunt and gather across the landscape (Hunn 1986). In the interior Columbia Basin, fishing sites and particularly productive root grounds close to villages "belonged" to families of that village, even being given family names. Other subsistence areas, normally more distant from permanent settlements, were not owned, but jointly shared (Ray 1939: 16). "Uninhabited lands," where substantial settlements were rare, were doubtlessly extensive in some mountainous and desert regions and were usually used by peoples from the various neighboring areas (Blyth 1938: 403). Many areas of southeast Oregon appeared "unoccupied," with no immediately "resident" communities. High mobility negated "strict territorial delimitations," and the groups' names could change with the seasons of the year and the corresponding food they ate (Harris 1938: 408).

Though no land was traditionally "owned," there are areas (settlement locations and fishing stations) under "control" of tribal entities. Therefore, perhaps "boundaries" best represent a general range in course of the annual subsistence quest centered around a core settlement area or homeland with increasing political control toward the central core area. In many cases, areas of more permanent settlement were well enough defined or localized so that geographic gaps were recognized by local populations (Ray 1939: 16). As an example, while Sahaptin-speaking peoples were free to move among those people who shared their language, strict protocol was likely observed--as it is today--in deference to the territorial needs of other hunter/fishermen. Recognition by the Federal government of this "exclusive" control for many groups was gained through the Claims Commission process in the 1950s and 1960s (Beckham 1991).

In other words, boundaries between settlement clusters or "tribal" areas were not fixed lines, but rather marginal areas commonly used by many groups. Boundaries may often be conceptualized in geographic formations or areas of change (transitions) - which can be ethnic, linguistic, or social (Chalfant 1974c: 193). Similarly, cultural boundaries are not evident and of little relevance in the region. The Dalles/Celilo Falls area where socio-economic interaction was intense represented a linguistic boundary between Chinookan and Sahaptin speaking peoples, but not a cultural boundary (Suphan 1974b: 21). Similarly, the major linguistic boundary between Salish and Sahaptin peoples in eastern Washington does not reflect cultural transitions either (Chalfant 1974d: 359).

Simply put, "there were no territorial lines of demarkation between territories" as normally conceptualized in Euro-American terms (Suphan 1974a: 122). Boundaries are more appropriately viewed as lines of balance. The economic activities of most peoples in the region had

tremendous geographic range with areas outside of a normal range being used sporadically by limited numbers and being secondary to the annual subsistence pattern (Chalfant 1974a: 157). In addition, there were varying degrees of land utilization within primary traditional subsistence areas with parts being used seasonally by peoples from other areas (Chalfant 1974a: 163). In sum, throughout much of the intermontane, individual ethnic groups had primary use of core areas surrounded by less intensively used and overlapping hinterlands. This pattern was less distinct in the northern Great Basin and upper Snake River Plain region where mobility was considerably greater. In general though, peoples from various directions jointly used areas and it is still customary to meet at various places during the summer season for the purpose of trading and social intercourse.

It should be noted that non-Indians, including those in public land management positions, have commonly considered treaty-defined ceded boundaries as lines demarcating tribal areas of interest. However, ceded treaty boundaries were commonly defined by U.S. treaty negotiators prior to treaty council meetings (Richards 1993). Case law since has ruled that these imposed ceded boundaries are not inclusive of all the subsistence areas traditionally used by the respective peoples and consequently serve only a limited function in defining tribal interests in the region.

Population Disruptions

Indian peoples have withstood a constant barrage of actions leading to erosion of the land base, water rights, resource loss, and desecration of sacred sites and places. The impacts occur within the realms of culture, society, and economy. It has been surmised by some that the population of the Columbia region was possibly its greatest around 1780 (Chalfant 1974e: 206). Regular trade with non-Indian nations began by sea in 1788 thus leading to the introduction of exotic diseases to the Northwest Indian population through more direct contact and perhaps for the first time. Such events include an 1823 great fever apparently limited to Lower Chinook peoples to the west, an 1846 smallpox epidemic east to Nez Perce country, an 1847 measles epidemic among the Cayuse and others, and an 1852-3 smallpox epidemic throughout Washington and northern Idaho which wiped out whole villages (see Boyd 1985, Campbell 1988). Others have suggested that catastrophic population losses began earlier due to indirect transmission of exotic diseases, followed by the episodes mentioned above (Campbell 1988). In addition to impacts due to disease were several decades of sporadic hostilities and friction with the military, settlers and miners, and the final relocation to reservations.

Regardless of the timing and sequence of events, the result is the same, a great loss in population and culture through the 18th and 19th centuries. One possible consequence attributed to the widespread decimation was the reaffiliation of groups (Chalfant 1974c: 176). Recently Walker (1993a: 141) has described a process by which local food-named groups became "quickly absorbed into larger composite bands with regional names such as Lemhi Shoshone-Bannock or Fort Hall Shoshoni-Bannock." The group names survived as "hunting districts" named in the Fort Bridger Shoshoni-Bannock Treaty of 1868.

Though now disconnected geographically, communities are still connected through a

common history, a web of kin relations, similar traditional subsistence activity, and religion, and have maintained a distinct identity system. However, "the people" are best defined by "identification with a territory", and groups today still suffer from enmity of other groups they have been forced to share reservations with and from losing title to homelands at first and then, in many cases, reservation lands. Some people were given their choice of which reservation to relocate to, others were assigned involuntarily. The U.S. has frequently failed to protect Indians from illegal encroachments on even the lands reserved by Congress or executive order for exclusive Indian use (Ray 1974a: 260). Communities nonetheless persisted, engaged in conflict with external agents over issues of political, demographic, ecclesiastical, and economic incorporation. For example, despite continued efforts at assimilation into the U.S. population, with certain periods of intense pressure, tribal communities have rarely adopted "an urban middle class economic ethic of individual acquisition and saving for personal gain" rather it is "a society organized on principles of reciprocity and sharing" (Meyer 1983: 32, from Schuster 1975: 59). The people became quickly sophisticated in interaction with federal agencies and private corporations making use of legal institutions. Skills have been developed as survival strategies, making strong use of extended family networks, patterns of mutual aid, sharing of resources (including development of communal commercial enterprises such as agricultural and livestock cooperatives and industrial parks), and formation of governments based on European-derived political principles.

Federally-Recognized Governments

A number of sources discuss late pre-contact tribal distributions in the northern intermontane and offer a number of theories concerning population movements (Berreman 1937; Anastacio 1972; Fowler 1986a; Garth 1964; Ray 1939, 1960; Ray et. al 1938; Aikens and Witherspoon 1986). Though intrusion of non-Indians introduced dramatic disruptions in traditional lifeways, rapid depopulation, and dislocations, the distribution of modern-day tribal communities throughout the northern intermontane generally mirrors pre-contact times with the attachment to ancestral lands still largely intact (Fig. 3 and 4).

Effects on the Indian settlement patterns by non-Indian exploration and settlement through the 19th century was variable in the northern intermontane region. Though demographic and environmental effects of non-Indian intrusion into the interior Northwest was first felt along the Oregon Trail emigrant route early in the 1840s and 1850s, population displacements in some more "out of the way" sub-basins did not occur until after 1900 (Ray 1936: 99).

On a broad geographic scale the project region may be culturally considered in three general regions, somewhat congruent with the physiographic regions.

1. Columbia Plateau Region: The southern portion of the basin was primarily used by Sahaptin-speaking groups, including the Nez Perce, Cayuse, Tenino, Wyam, John Day, Tygh, Umatillas, Wanapum, Wallulapum, Klickitat, and Palus. Though the various groups were politically independent, related dialects were spoken and many customs shared. Also on the Columbia River were the Chinookan-speaking Wishram and Wascos. To the

north were numerous Salish-speaking groups, including Wenatchee, Entiat, Methow, Chalan, Colville, Nespelem, Sanpoil, Kalispel, Spokane, Coeur d'Alene, Pend Oreille, and Flathead, and the Kitunahan-speaking Kutenai of northern Idaho and northwest Montana. These large linguistic groups may be characterized by numerous dialects. For instance, Sahaptin is a complex of some 15 dialects spoken by peoples now mostly on the Yakama, Warm Springs and Umatilla reservations. As noted above, basically all groups in the region are related to one another by blood and marriage, linguistics, traditions, history, or religion. The traditional economic systems of these Plateau groups are varied, with major factors being latitude, elevation, and such landform features as the historic obstacle to salmon at Kettle Falls blocking anadromous fish from much of the upper Columbia region. The current land base is largely in the form of a number of reservations and widely scattered allotments.

2. Upper Klamath Region: The region was traditionally utilized by the Klamath, Modoc and Northern Paiute (Spier 1930; Ray 1942). The Modocs lived along Lost River and the Klamaths around Klamath Lake, Agency Lake, and the Williamson River. These groups are culturally similar to the Columbia Plateau groups with added California and Great Basin influences, and, in fact, have overlapping subsistence areas with the Plateau Sahaptin groups in the upper Deschutes River drainage. These people have little land base at present due to past Congressional actions.

3. Great Basin/Upper Snake Plain Region: The relatively more mobile Shoshonean-speaking (Paiute, Shoshoni, and Bannock) groups were the principal communities of the interior draining northern Great Basin and much of the upper Snake River country. This region represented the lowest populated density in the intermontane as each family roamed about on its own and winter villages were often less permanently based than to the north and west. The high mobility and broad dispersion is still reflected in the distribution of settlements today, including Warm Springs, Burns, Yakama, Klamath, Duck Valley, Fort Hall, Ft. Bidwell and Ft. McDermitt.

Characteristics of each of the modern-day federally-recognized tribal communities are described in Appendix A.

Non-Federally Recognized Indian Communities

In addition to the above Federally-recognized tribes, there are also non-recognized traditional Indian communities in the region, including some who never negotiated treaties, moved to reservations, or sought Federal recognition or assistance. Consequently, these groups do not have a government to government relationship with the United States. Traditional use ties to their ancestral lands are asserted through claims of prior occupancy and demonstrating perpetual use of ancestral lands.

One non-recognized group in the region is the Wanapum, located in the Priest Rapids area

of the Columbia River near their traditional village site. They remain today one of the more conservative, traditional groups still maintaining an off-reservation residential status (Relander 1986: 30; Ray 1936: 111; Ray et. al 1938: 393). The traditional Wanapum homeland included both banks of the Columbia River from above Crab Creek downstream to the mouth of the Snake River, with primary settlement at Priest Rapids on the west bank as mentioned above (Ray 1936: 151; Suphan 1974a: 141). Mat-covered lodges persisted at Priest Rapids as late as 1955 (Ray 1974b: 381). The Wanapum settlement served as a great rendezvous for salmon fishing and trade. The Wanapum subsistence area includes Saddle Mountain eastward to Ephrata and an important subsistence area on the east bank near Waterville (Chalfant 1974f: 297). Their areas were shared with Wallawallas, Umatilla, Cayuse, Nez Perce and Yakama. Though their homeland was ceded to the United States in the 1855 Yakama Treaty, they were not signatories to the treaty. The fourteen bands that were signatory to the Yakama treaty in essence not only ceded their own territories but a vast tract east of the Columbia River occupied by non-signatory Columbia Salish groups (Chalfant 1974f: 271). Being a strongly traditionalist group and the home of the prophet Smohalla in the mid-1800s, the Wanapum have maintained their independence from the U.S. Government and other tribes and, in fact, attracted other traditionalists avoiding reservations (Ruby and Brown 1992: 260). An agreement with Washington State in 1939 provided for the group to take fish for personal and ceremonial use. In 1957 an agreement was signed with Washington's Grant County Public Utility District which waived future claims against the Priest Rapids Dam and assured the group rights to continue to hunt and fish on lands and waters of the project. Other groups, such as the Palus and other Snake River peoples, also spurned treaties (Hunn 1990: 270).

Several Indian organizations that are not traditional groups also serve tribes in the region. They do not themselves have governmental status or traditional claims in the region directly. But they do formally represent tribal views or positions on many issues. Some are inter-tribal organizations, including the Columbia River Inter-tribal Fish Commission, Affiliated Tribes of Northwest Indians, Upper Columbia United Tribes, and Native American Business Alliance. These organizations play an integral role in representing regional Indian policy and influencing U.S. public land and economic policy.

Tribal Economies

Traditional economic relations are extensive and complex. Even prior to non-Indian settlement, the mid-Columbia tribes served as wholesalers and retailers on an extended trade network stretching from the Plains to the Pacific Coast. The traditional annual economic cycle was composed primarily of two phases: winter life along the main rivers or lower elevations, and semi-nomadic summers on plateaus and higher ground in quest of various products with seasonal uses of major fisheries (Hunn 1990). All groups scattered across the countryside for most of the year gathering roots and berries, hunting, fishing, visiting and trading. Though such residential mobility has essentially ceased today, the same annual geographic shifts in resource emphasis continue today. Tribes still view trade and commerce as central to economic and political self-sufficiency. Accordingly, new trading partners are seen along the Pacific Rim. The importance

of different products in local economies vary from group to group according to ecological differences in local environments. In addition to the inter-tribe flow of goods, an active intra-tribal system of exchange is also in place. Individual accumulation of goods is established for purposes of "giveways" which allows increased social stature. In addition, there is exchange through gambling, both within and between tribes.

The traditional economies of several of the northern intermontane groups changed significantly by the mid-1700s with acquisition of horses from the south (Haines 1938). The horse replaced canoe and water travel, and introduced new kinds of goods. Settlement locations changed in some cases, moving to more open, grassy areas for livestock grazing purposes away from traditional lakeside sites (Chalfant 1974c: 185). Mobility increased dramatically for those with horses and, consequently, economic power. The geographic range of contacts for these groups greatly expanded, such as the Cayuse of northern Oregon who established economic relations with the Flathead tribes of western Montana and Crows on the Plains.

Upon arrival of non-Indians in the region, traditional economies continued to experience substantial changes (see Reichwein 1988). Initial contacts with non-Indian peoples in the late 18th century and early 19th century were strictly economic in nature. Arrival of fur traders in the early 19th century further expanded the trade network outside western North America. Initially tribes controlled some traders' forts, providing security and taxing exported goods. For example, the Spokane House management paid tribute to the Spokane people (Anastasio 1974: 149). As discussed above, at least by the 1830s disease had decimated the populations of many American Indian tribes in the Northwest, thus substantially undercutting the economic foundation of the communities and creating losses in culture, including disruption of oral history traditions. Disease, in addition to increased non-Indian incursions and impacts on regional resources, led to many conflicts through the mid-1800s. On the plains and hills of the mid-Columbia region, bunchgrass originally grew to luxurious heighths of 3 feet; it was replaced by sagebrush in the 1900s (Ray 1974b: 381). At the same time, establishment of the Oregon Trail and the flood of emigrants across the route provided another trade opportunity. Natural foods and garden products were being traded for a variety of goods. The introduction of stockraising and limited agricultural practices brought additional significant changes in native economy by mid-1800s (Chalfant 1974f: 287). Traditional economies for the interior Columbia Basin tribes continued to function to some degree with the addition of modified lifeways into the 1880s. In the far northern Columbia basin, native life was described as little disturbed until the 20th century (Ray 1974b: 380).

Passage of the Dawes Act in 1887 introducing the allotment period (see Section II) further abruptly disrupted many of the remaining economic traditions by dramatically reducing tribal control of an economic land base. The Confederated Tribes of the Umatilla Indian Reservation was one of the first and more severely affected by the allotment process in the Northwest. Landless with natural foods destroyed or access hindered, the people eked out a living through manual and domestic labor; still with inadequate land base to support economic self-sufficiency, they continue to depend on outside labor and wage for subsistence associated with acculturation trends. Some economies still functioned, even during the economic depression era of the 1930s,

due to the abundant fisheries available. However, further substantial disruption in the 1950s occurred through the tribal government termination actions of the U.S. government, with The Klamath Tribes being the most affected in the United States. Also, by this time additional fragmentation of allotments occurred as remaining allotments were further subdivided and passed on to heirs. Perhaps the most dramatic survival period for tribal economies occurred during the 1950s and 1960s.

In sum, a dramatic shift in the regional economic balance between Indian communities and non-Indian society occurred during the 19th century. Due to the decreasing access and availability of resources, the cost of acquisition for different resources increased and the net return declined with effort. Production of foods, medicines, and industrial raw materials became much more restricted through time. Boosting the economies in the 1960s was the award of a number of sizable monetary settlements for land claims successfully argued. Also, twenty-five western North American tribes, including several from the Northwest region, filed a claim concerning mismanagement of Indian Claims Commission judgement funds and of other funds held in trust by the United States (Ruby and Brown 1992: 195). Resulting awards for several of the northern intermontane tribes were in the millions of dollars.

As traditional economic activities became less feasible, dependence on non-traditional economies grew, and eventually tribes were largely drawn into the national market economy. This significant transition in economies may often have been associated with a corresponding "cultural disjunction as corporate interests and enterprises replace family and community-based production systems" (DeWalt 1994: 124). By the 1970s economic recovery boosted by increased tribal authority began to take effect. Use of off-reservation treaty resources supported by the *U.S. v. Oregon* (1969) decision began to increasingly contribute to the economies for many groups striving for self-governance through authority provided by the Indian Self-Determination and Education Assistance Act of 1975. Correspondingly, tribes began to become involved in public land management decision processes, aided by passage of several regulatory Congressional acts. The economic recovery continued to escalate into the current decade though off-reservation treaty resources continued to diminish through increased competition and environmental degradation.

This economic recovery is based in part on changing uses of natural resources. In conformance with the National Indian Forest Resources Management Act, an assessment of the status of Indian forest resources was recently performed. As noted in the resultant report, "Indian forests are vital to tribal communities...(which) provides the backbone of economic activity in many locations" (Indian Forest Management Act Team 1993: 1). Eight tribes in the northern intermontane region were recognized as having over 100,000 acres of commercial timberland or over one million board feet allowable cut (Coeur d'Alene, Colville, Flathead, Nez Perce, Spokane, Umatilla, Warm Springs, and Yakama). Three other reservations contained lesser, but still economically viable, timberlands (Fort Hall, Kalispel, and Fort Bidwell). Through self-determination policies of the past two decades, tribes are assuming more of the forestry functions from the BIA. As with the Federal agencies, ecosystem management-based strategies emphasizing maintenance of ecological processes over commodity production is gaining increased attention with tribes taking a stronger leadership position in their development. Within this shift

in focus, means still available for increasing income and other benefits from timber harvests have been identified. Integrated resource management plans (IRMP) have become the preferred means of guiding land use as demonstrated by the Colville and Yakama tribes among others in the region. However, a shortage of funding and resource management expertise are problems hindering timely development of such plans.

At present, a major emphasis is focused on reestablishing a land base, seen as critical for continued economic growth. An example of current efforts to re-acquire land is the Yakamas' efforts to gain surplus land on the Hanford Nuclear Reservation. It is an area where teachings and rituals are still practiced today. Related to the acquisition of lands, the governors of Oregon and Washington and U.S. secretary of energy agreed to share decision-making authority over the Hanford Nuclear Reservation cleanup with Yakama, Nez Perce, and Umatilla.

Various factors must be considered when assessing modern-day economic impacts to Indian populations in the region. Such factors identified by economists include generational compounding of low employment (Meyer 1983). Additional social costs of economic declines also result from low mobility potentials of Indians, because of the limited size of homelands when compared to the entire United States available for non-Indian American citizens.

Since the disastrous consequences of allotment and termination on tribal economies and passage of the Indian Reorganization Act, many subsequent developments have been Indian-initiated and directed. Meyer (1983), in a discussion of the economic and non-economic importance of Columbia River fisheries to tribal communities, has described some factors influencing tribal efforts toward economic growth. One major factor is their rural nature. Another is the fact that "where primary production is generally exported and finished products generally imported, self-sufficiency is not likely, and poverty is the predictable result" (Meyer 1983: 6). The development of economic activities based on "own" resources with broad involvement of community members does present a general remedial measure. Similarly, an objective expressed by BIA in 1972 was development of truly Indian economic systems so that dollars can be kept moving throughout an Indian economy. Historically, the "resources of Indian reservations have been regularly exploited...leading to the drastic diminution of the Indian land and resource base...(and) this necessitates stringent resource protection" efforts on behalf of the tribes (Meyer 1983: 7).

Benefits of resource uses to a community can take several forms: physical production, dollar revenue from sales, employment, social and psychological well-being. Values can include "existence" values (just knowing the resource exists in natural state is sufficient) and "vicarious" values (knowing the resource remains available for some other group is sufficient). Another factor is "social time preference" which represents the relative importance that a community assigns to the current generation and to successive generations when balancing the consumption rate of resources (Meyer 1983: 8). This factor marks a major distinction between tribal and United States societies with tribal emphasis on several generations forward and back. Tribal communities are now seeking to "merge traditional cultural concern and experience with effective product development for the modern markets" (Meyer 1983: 32).

Resource management capabilities vary significantly between tribes, "as does degree of tribal control over resources" (Meyer 1983: 16). As Meyer (1983: 34) has observed, "On all reservations, the economic base is narrow, and dependent on one, or at most two, natural resource related activities for economic sustenance." The allotment of substantial portions of trust lands, including timbered and agricultural lands, to individuals has greatly complicated land management and economic development initiatives (IFMAT 1993: 13). Warm Springs and Yakama were relatively better off during most of the 20th century in economic terms since they were better able to fend off non-Indian efforts at acquiring Indian lands and resources. The Umatilla and Nez Perce, on the other hand, have suffered severe depletion of this resource base (Meyer 1983: 35). On all reservations per capita income is substantially lower than non-Indians in the Northwest.

Efforts at promoting economic growth are as diverse as the tribal communities themselves. Presently, casino development and gaming is seen as a relatively quick way to boost employment and build capital for land acquisition and investment in other economic endeavors. A large amount of political turmoil on reservations today is between traditionalists and "the more assimilated people" over the use of land resources. The latter group views land as an economic resource, the former as a homeland to be lived in a sacred manner (Deloria 1994: 212). In either case, these lands are the "permanent homelands where Indians live intimately with the environmental and economic consequences" of their decisions (IFMAT 1993: 14). In addition, economic development programs have caused population shifts, breaking down traditional bonds, and causing social stress. Characteristics of each of the tribal economies are individually described in Appendix A.

II. Legal History

The appropriateness of Indian peoples having interests in public lands is often questioned and not understood by not only the general public but even Federal agency personnel. Consequently, recognition of the legal status of tribes is normally an initial issue to be resolved in establishing collaborative relationships between agencies and tribes. Relevant issues revolve around sovereignty, trust status, self-determination, self-governance, access to sacred places, and harvest of traditional foods and medicines. In addition, the relationship between the Federal government and tribes today is strongly influenced by the many legal events occurring in the past. Those agency and tribal personnel who "sit at the table of dialogue" today carry this "baggage" of legal history with them, despite their lack of personal involvement in the past. For both reasons given above, it is important to summarize the trends and general character of past events.

For over two centuries, federal policy towards Indian peoples has been caught in vacillation between two conflicting themes: self-sufficiency/self-governance and assimilation (Getches et. al 1993: 2). From the geographic vantage point of the Pacific Northwest, the legal history may be conceptualized in four distinctive time periods. The first, prior to 1850, is the pre-treaty period for the Pacific Northwest, a time of escalating interaction between cultures in the region and a great loss of population due to introduced exotic diseases. The 1850-1871 time period was one of intense interaction with treaties being negotiated as the land base was rapidly lost and open hostilities were occurring on a recurrent basis. The third period, 1871-1971, is marked by the oscillation of federal policy, from assimilation to self-sufficiency and back to assimilation. The final period, 1971-1995, is one of increasing self-sufficiency, self-governance, and economic growth.

Pre-1850: Formulation of Federal Policy

From initial non-Indian settlement of the east coast of North America dating back to 1532, Indian tribes were considered as sovereign and independent political entities by European nations and functioned as such. Spain established principles of Indian title and consent requirement as early as the 16th century and these continued to influence international law through the 18th century (Cohen 1971: 47; Getches et. al 1993: 50). Thus, tribal sovereignty was recognized prior to creation of the United States and Indian tribes were, from the beginnings of the Federal/Indian relationship, recognized as powers capable of making treaties (Cohen 1971: 274). The United States inherited from England the conflicting policies of recognition of Indian sovereignty within the context of "right of discovery." The latter policy gave title to the discoverer subject only to the Indians right of occupancy (Cohen 1971: 46). In 1775, the Continental Congress as one of its first acts "declared its jurisdiction over Indian tribes (and)...to treat with the Indians" (Cohen 1971: 9). The Northwest Ordinance of 1787 reaffirmed this recognition of sovereignty to tribal groups (Cohen 1971: 69). Correspondingly, the Constitution, drafted also in 1787 and adopted in 1789, acknowledged the sovereign status of Indian Tribes and recognized Indian treaties as part of the "supreme law of the land" (Cohen 1971: 34). The Indian Trade and Intercourse Act of 1790 was the first of several temporary acts passed in the 1790s, defining Federal rights and

duties toward Indian nations (Cohen 1971: 69). These policies ultimately became the cornerstone of U.S. Indian policy and became permanently expressed in the Indian Trade and Intercourse Act of 1834 (Getches et. al 1993: 99). Marking the outlines of Federal Indian law, the act established treaty making policy and the reservation system, and asserted that land and other property could not be taken from Indians without their consent. The 1834 Act further expressed the power the Constitution gave Congress over Indian tribes and provided a new definition of Indian Country by recognizing American Indian "title" throughout most of the United States west of the Mississippi River. This act was described by Cohen (1971: 73) in 1941 as "perhaps the most significant date in the history of Indian legislation."

A series of three Supreme Court decisions, referred to as the Marshall Trilogy, were issued on between 1823 and 1831. Established were the Discovery Doctrine in which only the federal government has preemptive right to procure Indian land; identification of the trust responsibility of the Federal government, with Indian tribes having status of sovereign, domestic dependent nations who do not have power to make treaties with foreign countries; and, the Supremacy Clause which holds that treaties take precedence over State laws (Cohen 1971: 274; Getches et. al 1993: 122). Thus, by the mid-1830s U.S. Indian policy was well established and the fundamentals remain basic to today's Federal agency activities.

In 1848, the Oregon Territory was created by the Organic Act which extended the Northwest Ordinance's confirmation of Indian title to land in the new U.S. territory. It also recognized the treaty process by asserting that lands not expressly ceded by ratified treaty constitute Indian Country. The act also established the Superintendent of Indian Affairs position.

1850-1871: The Treaty Period

An aggressive policy in the Pacific Northwest of securing land for non-Indian settlers through treaties began in 1850 (Coan 1922). Passage of the Act of June 5, 1850 established a program for implementing Indian policy in Oregon Territory. It created a Treaty Commission and extended the 1834 Indian Trade and Intercourse Act to Oregon. However, in direct contradiction was the Oregon Donation Act of 1850 (9 Stat. 496, amended by 10 Stat. 158) which ultimately provided patent (7,437 claims in Oregon and 1,018 in Washington) to land totalling 2.8 million acres. Title to these lands went to new settlers of the Territory beginning prior to the ratification of any treaties of land cession in the Pacific Northwest. This action was contrary to established U.S. Indian policy and, not unexpectedly, created considerable tension in the region evident through the present day. Further tension was added with passage of a Congressional act on March 2, 1853 creating the Washington Territory from part of the previous Oregon Territory, thereby extending the Donation Land Act to that territory and encouraging settlers to dispossess long established Indian communities.

The period of 1854-55 was particularly one of increasing stress between Indians and non-Indians in the region, given the following factors: (1) the significant Indian population decline due to recurring epidemics; (2) encroachment and seizure of Indian lands authorized by Congressional acts in contradiction to long established United States Indian policy; (3) rapid

destruction of Indian food resources; (4) non-ratification of Indian treaties negotiated with western Oregon tribes in 1851; and, (5) the persistent overt hatred and mutual fear and distrust between both communities (Beckham 1984: 33). The very short time frame allowed for negotiation of the treaties by the United States enhanced bitter feelings, despair, and latent hostility.

In Oregon 34 treaties were negotiated with tribes, but many were never ratified, causing frustration and confusion between tribes and the United States. In 1855 various native groups in the interior Columbia Basin entered into five treaties with Washington Territorial Governor Isaac Stevens representing the United States (see Appendix B). Each of these treaties reserved rights for the tribes to continue off-reservation subsistence activities. The treaties contain virtually identical language, reserving "the right of taking fish at all usual and accustomed places in common with citizens of the Territory ... together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle on open and unclaimed land" (Kappler 1904: 714). A primary goal of the tribes in treaty negotiations was the preservation of their traditional economies and cultures. The reservation of pre-existing rights included the right to take any species without species limitation unless the right was expressly ceded.

Another key treaty in the region, the Treaty of Fort Bridger (15 Stat. 673), was negotiated in 1868 with the Shoshone-Bannock tribes. The treaty reserved "the right to hunt on the unoccupied lands of the United States." Subsequent case law, the 1972 case of *State v. Tinno*, interpreted the "right to hunt" to extend to fishing and gathering seemingly comparable to the 1855 Stevens treaties. The Court agreed that the Indian peoples expected rights to harvest food on the unsettled lands as a means of subsistence and an integral part of their way of life.

The treaties were controversial from both the United States and Indian peoples' perspectives. Some people in the federal government felt the treaty process was a farce and that it would be more equitable for the government to dictate benevolent terms. The treaties are commonly perceived by Indian peoples as "coerced agreements" in which ceded boundaries were pre-determined by U.S. agents prior to the actual treaty councils with tribal "representatives" (Yakima Agency 1993: 1-2). But many in the U.S. government, including President James Madison, did not want to risk charges of aggression or non-democratic activities (Richards 1993: 192). The inequities pointed out include: (1) treaties were written in English; (2) European concepts of land ownership were unilaterally imposed; (3) like today, all Indians were considered the same by negotiators despite diverse cultures; (4) ceded boundaries were derived ahead of the treaty councils; (5) incompatible native groups were relocated together; (6) negotiations were performed with selected individuals who often did not actually represent the tribal populations; (7) promised services often were not provided due to reluctance of Congress to appropriate funds; (8) treaty results were pre-determined; and, (9) non-Indian settlement often immediately followed negotiations resulting in defacto ratification. In addition, the treaties divided Indian peoples over decisions to participate and sign treaties, and increased factionalism among groups. The treaties have set the foundation for considerable conflict (Baenen 1968; Cohen 1986). American Indian societies traditionally make community decisions through consensus. Consequently, many traditional bands and individuals who were not present at the treaty councils refused to move to the resulting reservations. For that reason, many wished to remain in Grande Ronde and Walla

Walla valleys (Confederated Tribes of the Umatilla Indian Reservation n.d.: 11). Development of unity is still a major issue within most of the tribal communities today.

Positive aspects of the treaties were that they established beneficial ownership of Indian lands, rights to use lands and resources off reservation were reserved in some cases, and the treaties in recent years have provided a foundation for rejuvenation of tribal economies and heritage preservation. The treaties served to establish "reciprical obligations assumed by the Federal government and by the Indian tribes" (Cohen 1971: 33). Cohen continues, "treaties with Indian tribes are of the same dignity as treaties with foreign nations." However, as a consequence of the treaties and subsequent violent conflicts, many Indians in the region were removed from their original homelands, with some being sent as far as Oklahoma.

While the scope and extent of fishing at usual and accustomed stations have been defined through numerous court decisions, the geographical limits on other treaty-reserved rights have yet to be conclusively determined. The terms "open", "unclaimed", "public lands", and "unoccupied" lands carry with them the implied condition that rights reserved on those lands could be exercised until the lands were closed, claimed, or occupied by settlers under the public land disposal statutes. The courts have consistently held that they include the National Forests and BLM-administered lands, but have not been consistent with state or private lands.

A major influence on public land management today is that the treaties provide for apportionment of natural resources on the western frontier. The primary function of reserved rights retained by tribes constitutes the assurance of the U.S. government the right of tribes to sustain traditional lifeways. In other words, what is reserved is the way of life of the tribal communities (not just resource uses). The treaties, federal statutes, and executive agreements over the past 200 years have established a special trust relationship between tribes and the Federal government. Through the treaties and U.S. policies, the tribes received promises of federal protection for their lands, resources, assets and people. The benefits gained by the United States were considerable, establishing the basis for the country's economic development through the present. Congress has the power to modify or revoke a treaty, but such action must be compensated.

Beckham (1984: 23-32) has elaborated on the development of Indian policy in the Northwest in the early 1850s which led to the reservation of rights to the Columbia Basin tribes to public lands. These reserved rights do not commonly occur in other treaties of the Pacific Northwest. In brief, the territories were not considered good game country; therefore it was reasoned, reservations could be relatively small for purposes of exclusive use of lands if established in conjunction with a means to allow "the liberty of motion for the purpose of seeking, in their proper season, roots, berries, and fish, where those articles can be found, and grazing their horses and cattle at large" as stated in the 1854 *Annual Report of the Commissioner of Indian Affairs* submitted by Isaac Stevens. The treaties reserving these rights were seen as a legal remedy to the lack of recognition of tribal occupancy rights in the donation land act as noted above. Consequently, "public domain lands, not reserved to Indians and not claimed by white settlers, should be open to both Indians and non-Indians" (Beckham 1984: 27). The key

United States negotiators thus intended the treaties to provide Indians access to their basic subsistence resources. The reserved rights reserve "a greater spectrum of rights and privileges than are available to ordinary citizens" (Beckham 1984: 117) including continued supplies of wild game animals. It has been claimed that "Indians have a compensable interest in treaty-secured hunting and fishing rights guaranteed by the United States government" (Beckham 1984: 119) thus constituting an actual property right (Cohen 1971: 285).

The tribes retain authority to manage fish and wildlife on reservations by requiring liscensing, setting seasonal limits and gear restrictions. On a broader scale, tribes retain the right of self-government over their territory, free of state control. The tribal governments also retained authority to regulate hunting and fishing by their members within ceded lands and at usual and accustomed sites, with state regulations having only limited application. States can manage the exercise of rights in certain instances.

According to a series of Supreme Court decisions, Indian treaties must be interpreted according to the understanding of the Indians where ambiguities are discovered. For example, *United States v. Winans* established that rights are not subordinate to the States, treaties must be construed as Indians would have understood them, and right of access to usual and accustomed fishing sites continues even when public lands pass into private ownership (Getches et. al 1993: 155). As stated in the Idaho Tinno case, "the mere passage of time has not eroded the rights guaranteed by a solemn treaty that both sides pledged on their honor to uphold..." Also, in the absence of clear judicial direction, all reserved treaty rights should be exercisable both on ceded lands and in other areas traditionally used for those activities at the time of the treaty (Cohen 1971: 37). Investigation into the tribal understanding of treaties is a part of an agency's official trust responsibilities in their determination and enforcement of treaties and tribal off-reservation treaty-reserved rights. Most importantly for public land management considerations, tribal traditional areas as related to off-reservation treaty rights extend well beyond the United States-imposed ceded and reservation boundaries. The tribes' right to take fish that pass their usual and accustomed places is reaffirmed by numerous court decisions (see *Sohappy v. Smith*, 1969; *United States v. Oregon*, 1976; *Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n*, 1979). Absent specific authorization by Congress, Indian treaty rights cannot be abrogated (*Menominee Tribes v. United States*, 1968).

In sum, Hunn (1990: 269) states that "treaties...provide a legal basis for the continued existence of a Plateau Indian way of life." They promote the political, cultural and economic survival of Indian communities despite non-Indian settlement of their lands.

In 1871 Congress terminated Indian treaty powers of the Executive Branch, bringing the House of Representatives into the negotiation process (Cohen 1971: 77). Negotiations for land cessions continued through the following decades in the form of "agreements" rather than treaties ratified in the form of executive orders and Congressional acts (Cohen 1971: 67). Some see this action by the United States as constituting a marked decline in Federal recognition of tribal sovereingty. However, regardless as to whether a "reservation" has been created through treaty, statute or executive order, they have the same validity and stature (Cohen 1971: 299). Such

reservations perpetuate the Federal-Indian relationship in which the rights of the Indians were always those of occupancy and use, and the fee was placed in the United States (Cohen 1971: 299). It has long been established that fee title in lands in the U.S. was vested in the Federal government from the time of formation of the Federal government. Indian title consisted of a right to perpetual occupancy with the privilege of using it until the right is given to the U.S. (Cohen 1971: 300). It is similarly immaterial whether the trust lands are labelled reservation or colony. The use of executive order authority to create reservations was terminated by statute in 1910.

1871-1971: A Century of Vacillation

The reservations, though sizable in the beginning, were systematically and dramatically reduced in size as non-Indian settlements and land use expanded. Passage of the Dawes Act in 1887 led to dramatic reductions, if not elimination, of reservations as allotment plans were developed through the next few decades and tribes were dispossessed of much of their lands (Cohen 1971: 78; Getches et. al 1993: 190). The act gave BIA authority to allot parcels carved out of reservation lands to tribal members and to dispose of the "excess" lands to third parties. Tribes lost 90 million acres nationally, from 138 down to 48 million, and the Indian Country left was severely fragmented. A key intent of allotments was to enforce adoption of a farming economy. The aridity and poverty of soil "made small holdings infeasible, and the program was largely a failure" (Murphy and Murphy 1986: 303). Integrity of most of the reservations was severely compromised. The Klamaths and Warm Springs Indians were able to keep intact large tribal reserves; however, the Klamaths eventually lost their reservation through the Termination Act of 1954. Without a land base, the Indian lifeway and economic bases were catastrophically affected.

An example of the dramatic implications of the allotment process is demonstrated by the Nez Perce (Walker 1985: 77). The previously established reservation was allotted between 1890 and 1895, reducing Indian held lands from 757,000 acres to 175,000 acres. The land loss also resulted in population redistribution and increased intermarriage with other groups, thus loosing the previously held spatial and social isolation. By 1923 approximately half of the allotments had been sold and by 1963 Nez Perce holdings amounted to only 57,000 acres.

While traditional economies and land bases were being decimated, major court victories were won reaffirming validity of treaty and individual rights. In *U.S. v. Winans* (1905), the reserved rights doctrine was elaborated in that tribes granted rights to the U.S. and rights not specifically ceded were reserved. The Winters Doctrine followed in 1908, not only setting the foundation for all Indian water law, but also establishing the canons of construction in which any ambiguity in interpretation of treaties must be resolved in the tribes' favor (Getches et. al 1993: 776). In regard to water law, it was established that Indian water rights are defined by Federal rather than state law (contrary to the common "prior appropriation" doctrine) and that reservation of water rights is established by reservation of land and must be sufficient to meet the purposes of the reservation. Also, the Indian Citizen Act of 1924 extended U.S. citizenship to all Indian peoples, granting them voting privileges in federal elections (Cohen 1971: 82; Getches et. al 1993: 499).

Allotment in severalty was terminated in 1934 with a basic shift in policy back away from forced assimilation to a policy of cultural and ethnic pluralism. The Miriam Report of 1928, prepared by the Brookings Institute, was a comprehensive assessment of the impacts of the previous Congressional actions on tribal communities. Resulting from that report was a recommended change in Indian policy to right past wrongs. The Indian Reorganization Act (IRA) was passed in 1934 (Cohen 1971: 84; Getches et. al 1993: 216). The Act made major revisions to Indian policy by: ending the alloting of Indian lands; extending the trust status for lands alloted; restoring unsold "surplus" lands from the allotment period to tribal ownership; ceasing the sales of Indian lands to non-Indians; beginning acquiring lands for Indian use; establishing the right of tribes to incorporate; providing revolving loans; and, enhancing management practices for Indian forests and range.

The IRA encouraged tribes to organize as governments and receive formal recognition from the federal government. Tribes could form corporations for their own economic development. The Federal policy sought to promote reservation autonomy and self-determination and to preserve Indian cultures and values. Cohen (1971: 67) provided the following analysis: "the underlying assumption of the treaty period that the Federal Government's relation with the Indian tribes should rest upon a basis of mutual consent was given new life in the mechanism of federally approved tribal constitutions and tribally approved federal charters." The IRA has been characterized as having "formed the basis for communal survival in the postwar world" (Deloria 1994: 29). From other perspectives, the act is also viewed as a way of limiting the number of Indian political entities with whom the U. S. must deal.

As a result of the act, the establishment of constitutions and by-laws under the IRA ended the leadership era of headmen and recognized chiefs in many cases. New leadership was provided by boards of trustees or business councils and chairmen. The boards often have been responsible for establishing concepts of economic development and establishing resource management policies in timber, range and farming.

The Indian communities in the region responded to the IRA variously. Northwest tribes have taken different paths in establishing Federally-recognized governments. After passage of the IRA, many of the tribes incorporated during the following decades of the 1930s and 1940s. In contrast, some Northwest tribes chose not to incorporate (Confederated Tribes of the Umatilla Indian Reservation n.d.: 13). For instance, those living on the Umatilla Reservation did not want to lose their allotments. However, by 1949 the traditional chiefs and headmen had lost power. As a result, the tribes decided to adopt a constitutional government, establishing a board of trustees to make tribal decisions and granting 18 year olds and women voting privileges. This action constituted a political revolution for the Umatilla tribes and altered the control of tribal resource assets.

The Indian Claims Commission Act of 1946 established a process for extinguishing Indian claims against the U.S. Only monetary settlements were offered, not land, and without interest. Prior to 1946, tribes could seek money damages in Court of Claims only with the express consent of Congress. A total of 617 dockets were filed with the claims commission prior to the 1951

deadline. After the Commission was disbanded in 1978, incomplete cases were transferred back to the Court of Claims where many still reside.

The 1950s provided another era of major setbacks. The Termination Act of 1953 again introduced a forced assimilation policy (Getches et. al 1993: 729). Reservations of those tribes selected were terminated and lands sold to third parties. Federal services were ceased and tribal sovereignty terminated. A relocation program was established to guide tribal members departure from former reservation lands to urban settings. The Klamath Tribes was one of the hardest hit tribes in the nation, losing it land base which subsequently became the current Winema National Forest. Also in 1953, Public Law 280 was also passed greatly diminishing tribal sovereignty in selected reservations and states, including the State of Washington (Getches et. al 1993: 479).

Thus closed an era marked by great swings in U.S. Indian policy. Whereas tribal land bases in the Northwest were dramatically diminished from the initial reservation era of the 1850s-70s with dire consequences to traditional economies, opportunities for increased activity in the non-Indian economic markets were established.

1971-present: Self-Governance and Economic Growth

Tribal communities in the northern intermontane greatly benefited from actions of the Nixon administration. The Council on Environmental Quality (CEQ) regulations implementing the National Environmental Policy Act of 1969 recognized the need of Federal agencies for involving tribes in the project review process and established the national policy for protecting important cultural aspects of the "human environment." In 1976, the Forest Service and BLM planning processes in conformance with NEPA were recognized in the National Forest Management Act (NFMA) and the Federal Land Policy and Management Act (FLPMA), respectively.

Perhaps of most importance, the Indian Self-Determination and Education Assistance Act of 1975 provides substantial funding avenues for the tribes and allows tribes to assume responsibility for programs operated on their behalf by the Federal government (Getches et. al 1993: 256). Authority for tribes to acquire lands adjacent to reservations was also granted. This act has further enabled tribes to pursue economic growth and effectively assert their role in the region.

Importantly in the Northwest at this time, the Boldt Decision was issued in 1974. More formally known as *U.S. v. Washington*, a U.S. District Court decision reaffirmed off-reservation fishing rights and their priority over other uses. Upheld by the Supreme Court in 1979, tribes are allowed up to a 50% share of harvestable returning fish at accustomed traditional fishing sites. The right of tribes rather than states to regulate their off-reservation treaty rights was also recognized. An important aspect of this decision in regard to federal ecosystem managment strategies is the surmised right of tribes to take part in the protection of fish habitats, helping ensure that a treaty-related resource exists. The case has been allowed to stand open, as has the *U.S. v. Oregon* case which began in the late 1960s, in order to resolve further disputes

concerning the exercise of treaty rights. States still have authority to regulate for conservation purposes. Similarly, Klamath treaty rights were reaffirmed in a settlement agreement through the *Kimball v. Callahan* case. A process is established in which the tribe determines resource needs, the State of Oregon enforces relevant game regulations, and the Federal government manages related habitat. In addition, *United States v. Adair* provided water adjudication in which water for resources used and needed by the tribe is given top priority in allocation strategies.

In 1978, Federal Recognition Regulations were adopted establishing procedures for tribes to gain federal recognition status and reservation lands. The Klamath Tribes were restored in 1988. Also in 1978, the American Indian Religious Freedom Act required agencies to evaluate their actions regarding their impeding access to sacred areas. Though the act was not regulatory and lacked enforcement provisions, it led to substantial revisions of other regulatory acts mentioned below. In addition, a Circuit Court decision essentially established regulatory provisions by requiring agencies to consult with tribes when assessing potential project effects (Getches et. al 1993: 750).

A number of federal regulatory acts have passed in the last 15 years, increasing the role of tribes in the federal decision-making process and enhancing economic growth potentials. These include:

- the Archaeological Resources Protection Act (ARPA) of 1979 requiring tribal notification and consultation where requested in regard to proposed removal of artifacts by permit from public lands;
- the Indian Mineral Development Act of 1978 providing authority to tribes to regulate and develop tribal mineral resources and enter into joint agreement and leases;
- the Indian Gaming Regulatory Act of 1988 requiring tribes to develop formal agreements with states before opening casinos;
- the Native American Graves Protection and Repatriation Act of 1990 recognizing Indian control of human remains and certain cultural objects found on public lands and requiring consultation prior to authorized removal of such items;
- the National Historic Preservation Act of 1966, as amended in 1992, more explicitly incorporating tribal involvement into the Section 106 consultation process and making traditional use sites without physical remains eligible for listing in the National Register of Historic Places;
- the Religious Freedom Restoration Act of 1993 establishing a higher standard for justifying government actions that may impact religious liberties;
- and, the 1994 amendments to the Self-Determination and Education Assistance Act of 1975, expanding tribes authority to assume Federal responsibilities including services formerly provided by agencies and activities in areas of cultural, historical or geographic interest to tribes.

Guidance for conformance with the National Historic Preservation Act is provided in the National Park Service's National Register Bulletin No. 38. The publication addresses procedures for

identifying and evaluating traditional properties.

In addition to the above Congressional acts, the 1994 Executive Order on Environmental Justice was signed encouraging increased effective participation of minorities and low economic groups in proposed project environmental assessments. Complementing the above federal archaeological protection acts is the recently passed Oregon State Law SB61 which places tribes in a stronger role for protecting sites on state and private lands.

Recent administrative policy and guidance has been provided in two documents. Interior Secretarial Order No. 3175, issued in November 1993, established the responsibility of all bureaus and agencies to carry out trust responsibilities of the federal government and assess the impacts of their actions on Indian trust resources and requires consultation with tribes when impacts are identified. A White House memorandum was issued in April 1994 emphasizing the importance of government to government relations with tribal governments and compelling agencies to consult with tribes prior to taking actions that may affect tribal interests.

In sum, we are now in an extended period of increasing tribal political and economic involvement. The above series of Congressional acts, executive orders and court decisions have provided a basis for accelerating tribal renewal. In keeping with each tribe's unique legal and cultural histories is the unique path each is forging in their socio-economic recoveries. The long-standing treaties and agreements established a "trust relationship" between Indians and the Federal government in which the latter became a manager or trustee over unceded remaining Indian lands and resources on public lands for which rights were retained. The Federal government is responsible for assisting tribes while still recognizing their sovereign rights. In addition, the Federal government must mesh its trustee role toward the tribes with its responsibilities to manage public lands in the public's best interest. The Federal agencies have an obligation to not abrogate Indian treaty rights without specific Congressional action, and must use their authority to safeguard that which is the subject matter of the federal treaties. The trust relationship between the United States and Indian tribes is part of the very fabric of federal Indian law that imposes stringent fiduciary standards of conduct on federal agencies in their dealings with Indian tribes with respect to Indian-owned assets.

A number of tribal governments in the project do not have ratified treaties with the U. S. government. For example, many of the northern Columbia Basin tribes were missed by the Governor Steven's treaty expedition. However, formal consideration of traditional uses of native species and access to locations for religious purposes, as well as protection of cultural resources in general, are addressed directly and indirectly by the series of Federal mandates described above. These mandates address concerns of both federally-recognized tribal governments and Indian individuals regardless of tribal affiliation.

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III. Current Resource and Land Use

Given differing perceptions of the role native species and natural landforms in the lifeways of Indian and non-Indian peoples living in the region, the title of this section poses problems in representing how Indian traditionalists live on the landscape. As noted in Section I, the terms "resource" and "use" are culturally-loaded. To some, these terms misrepresent the interrelationship of native species, peoples, and the land. With these cultural distinctions in mind, various aspects of the landscape important to Indian peoples are described below.

Importance of Place

As described in Section I, the totality of the regional landscape has importance. These are sacred lands of the Indian peoples and all landscape components participate in a system of complex inter-relationships. As such, places of importance are created by an intersection of nature, social relations, and meaning. Sacredness is associated with supernatural power derived from the spirit world and sacred space is wherever spiritual energy resides. Landforms contain spirits of creation figures and descendents. Some spirits range freely across the landscape, whereas others reside at specific localities. In regard to the Klamath, Spier (1930: 100) stated, "Spirits are legion and in many cases are localized, so that one looking over the countryside finds it rich in religious connotation." Knowledge of landscape sacredness is passed through generations by oral traditions, performance of rituals and personal experiences. A clandestine persistence of such traditions has evolved when exclusiveness of such traditional knowledge became a cornerstone of relations with non-Indians, fueled by religious intolerance, mockery and mimicry of beliefs, and loss of control over sacred places.

The uniqueness of Indian population of the northern intermontane region is best characterized by this strong, long term spiritual attachment to the land. Although the various Indian societies in the region differ in many ways, perhaps most common is their relationship with the land and water (Spier 1930: 95). Creation stories common to Indian spirituality stresses the placement of peoples in this landscape by the Creator. Thus, their ancestry extends from "time immemorial." The peoples of the northern intermontane are part of a large, loose social web strengthened by their shared experience of the Columbia River Basin and surrounding ecosystems (Hunn 1990: 3). The traditional subsistence economy is broad-based, including fishing, fowling, hunting, and gathering terrestrial and aquatic resources over very large geographic areas encompassing a diverse range of important places (Walker 1993a: 146). The full range of resources needed to sustain lives and Indian culture was found each in its own place. Consequently, Indian peoples have accrued a "detailed, encyclopedic knowledge of their environment" through the millenia (Hunn 1990: 93).

Localism (the stong identification of person and place) is a key factor in traditional northern intermontane lifeways. Geographic stability and attachment to ancestral lands is represented in recurrent use of favored specific economic areas and campsites in annual subsistence rounds (Whiting 1950: 19; Ray 1932: 28; Hunn 1991: 9; Spier 1930: 9). This

association is reinforced by the brief time periods that traditionally-used resources are available in limited geographic locales. Such place identification has long been imbedded in Indian society. For instance, Hunn (1990: 97) noted an extensive geographical terminology among the mid-Columbia River Sahaptins that "suggests a long period of stable residence on this stretch of river." Sahaptin-named geographic areas extended as far south as the Metolius River, north to the Wenatchee River in interior Salish territory, west to Ft. Vancouver, and east to the Palouse country of southeast Washington.

The importance of place is embedded in Indian culture as reflected in the languages which serve a "symbolic link" to the land and maintenance of cultural identity (Hunn n.d.). Place names relay traditional knowledge of land and resources by referring to plants and animals which characterize a location, the actions of people at a location, the spiritual role of the location, or some other important attribute of the site.

The historical depth of these relationships and strong cultural identifications, while not well understood by most non-Indians, must be acknowledged as they reflect more than a place name veneer on the landscape. As for example, in the case of the Sahaptin speakers of the southern Plateau region, places where people interacted with the land in specific ways usually were named (Hunn n.d.). Such naming may be referencing notable plant and animal resources, whether found commonly or rarely, or for particular features of the place, either biological or topographic; in the Sahaptin world, places with topographic feature names are more often references to hydrological attributes rather than terrestrial. The very names of people or places have certain sacred qualities since they originate in the past, handed down generation to generation. This naming scheme is in contrast to English named places, which are often binomial, named for persons or distant home places, and usually identify each river or mountain as a single entity. This nomenclature difference reflects the differences in philosophy toward owning and claiming the land.

In native ideology, people did not presume to invent names for the land, rather they intended to allow the land's own characteristics to remain dominant through the naming process. For example, (1) some place names use word stems that describe the flow of the river current, the sweep of the landscape, a resource or some activity of people, or animals at the site; (2) a Sahaptin speaker recognizes a number of named river segments for the John Day River rather than a single named river system; and, (3) a number of names focus on a land feature as a referent to an object or place figured in a legendary cultural hero story (Hunn n.d.: 28-31).

Normally, native places have national heritage significance for local American Indians. Through these landscape places, people are provided a culturally enlivened world and continued confirmation of their distinctive living heritage. Yet, place names are fragile and often remembered best by elders. Even then, Hunn (1993: 9) estimates that over 60 percent of the original inventory of Sahaptin place names have been lost; with a limited potential for future recovery of unattested traditional names.

The importance of place to tribes in the region can be viewed as a hierarchical ordering,

from the broadest geographic scale to the smallest. Expectations of what "meaning" each order of place conveys to the community and individual are shared within each group and creates an "image" of how these places should be and what they should provide (Tuan 1977: 5). Each category of place is briefly discussed below:

Interest Areas

Interest area is the broadest notion of place for tribal governments, communities and individuals and is the most important for this project. The category is known by various names: aboriginal area, subsistence range, traditional area, region of interest, zone of influence, and so on. The frequently used phrase in the region, usual and accustomed area, normally refers to interest in fisheries in a region. When subsistence range is used, subsistence means more than foods for physical nutrition, but lands and resources important for socio-cultural sustenance and maintenance of tribal community well being. Given the fluidity of movement of peoples and the long time depth of the communities, the boundaries of interest areas are necessarily vague and can only be approximated to encompass expansive areas of the Pacific Northwest (Fig. 5).

A tribal interest area represents a coarse-grained approximation of the geographic region within which individual tribal governments express interest and concerns in activities which can potentially affect the landscape and resources. An interest area can be quite expansive and overlap with interest areas of other tribal governments. Normally, these areas represent the geographic extent of traditional uses by members of a tribe. The core area, or homeland, may be commonly located near the center of the interest area where exclusive use of resources and land by the respective tribe occurs. Shared resource use areas are near the internal peripheries of the areas. Unlike ceded boundaries and reservation boundaries that are precisely defined in United States legal documents, an interest area is not something to be expressly defined, but left open to ongoing interpretation and discussion on a project-by-project basis.

Addressing the southern portion of the ICBEMP area, Steward (1938: 248) states,

> The temporary and shifting intervillage alliances of this region, therefore, instead of consistently allying people of well-defined territories, entailed a linkage of village with village which extended, net-like, throughout the entire area. Political bonds, like subsistence areas, interlocked in all directions.

All communities considered in this assessment have interest areas, which include permanent townsites and locations returned to year after year normally in a homeland core area, and areas normally traversed seasonally. A large number of people have refused to leave their natal territories over the past two centuries, eventually becoming landless through settler and government appropriation, at least for a time until trust lands or allotments were established to some degree. The interest area provides the fundamental definition of geographic range of interest of any particular group. A region encompassed within an interest area is expected by the people to fully provide for the needs of the community.

Ceded Territory/Exclusive Use Area

Two types of negotiated areas, often confused even by persons knowledgeable of tribal issues, are considered here. The first is ceded area. Only those tribes who ceded lands by treaty or agreement. Secondly are exclusive use areas. Boundaries for these were established through the 20th century land claims process. Resultant boundaries for exclusive use areas are based on arguments provided to the Federal Claims Commission which tended to exclude the hinterlands of subsistence ranges, and focused primarily on "exclusive use" core areas.

These two types of areas are normally geographically large, but commonly considerably smaller than interest areas. Both are constructs of actions governed by U.S. Indian policy (treaties and the Indian Claims Commission Act) and not necessarily of traditional importance to Indian peoples. Ceded territories represent boundaries as established by U.S. treaty negotiators, often prior to the actual treaty council meetings. Hence, they are frequently considered arbitrary in nature by tribal communities and do not accurately reflect the extent of lands actually used on a consistent basis. Consequently, the ceded and land claim categories importance to perception of place are largely subsumed within the importance of interest areas, except where modern day legal questions may be relevant. As Indian case law has proven, usual and accustomed fishing sites and other traditional use locations are defined within interest areas, not ceded territories or land claims boundaries. The ceded areas are only a partial reflection of the cultural landscape (Yakima Agency 1993: 1-4).

The importance of exclusive use areas to tribes has been primarily tied to receipt of monetary settlements for land loss to the U. S. government. Ceded boundaries, where they exist, tend to establish a modern-day version of exclusive use areas, serving to identify tribal supremacy over other tribes in certain areas. They also form convenient administrative boundaries for tribal land use planning efforts and, in some cases, are viewed by tribal staff as defining the tribe's interest area.

Trust Lands

Reservations established by treaty or executive order, as well as other lands placed in trust by the U.S. government, define very important places to tribes due to the sovereignty of the tribes over activities within these lands. These lands define Indian Country today. Substantial legal responsibility resides with the tribes in the regulation of its members. Though normally geographically contained within interest areas, the importance of these special areas is outside the focus of the present project and will not be considered further here.

Cultural Landscapes

Recent discussions in the literature emphasize the relative importance and meaning of landscapes to peoples depending upon their own life experiences (Greider and Garkovich 1994). Any one landscape may represent multiple meanings depending upon who is experiencing it. Indian traditionalists perception of the biogeographical terrain, is highlighted by extensive

knowledge of utilitarian values in addition to the ceremonial (Hunn 1990: 115). In essence, every plant and animal found on various landform features is believed to have a significant role to play in the overall economy. Given the strong attachment to the land and the inherent importance of different landforms and vegetative communities, the landscape can be viewed as a continuum of meaningful features. Such features as mountain ridges, valley basins, canyon bottoms and mountain peaks often have differing forms of importance, each with its own distinctive mix of foods, medicines, sacred power places and ancestral grounds (Fig. 6). These areas, commonly several thousand acres in size, cover the entire landscape within the larger types of place categories described above. Certain prominent landmarks are "vivid landscapes, still alive for the elders" (Hunn 1990: 97).

Prominent landforms also provide useful indicators of the location of important plant and animal resources and, in some cases, of "boundaries." For example, in the Flathead and Pend d'Oreille country, river valleys provided the bulk of subsistence resources and served as primary travel routes (Malouf 1974: 163). In addition, before lands were surveyed, localities were fixed by reference to natural objects, such as mountains, streams, lakes, and valleys (Fuller 1974: 30).

The vulnerability of these landforms to disruptive intrusions is naturally variable, but sensitivity remains great. Some areas may be violated by intrusions introduced within its viewshed though not within the landscape unit itself. A major effect on the use of these landscapes is posed by proposed land tenure adjustments through which lands pass into private ownership, thus hindering access.

Cultural Site

The most geographically-limited category of place is the cultural site. This type of area may occur in the form of an archaeological site or a traditional use locality, or a combination of both. Some traditional use sites were distinctly pan-regional in importance (i.e., Celilo Falls, Kettle Falls, Stinkingwater Pass, Moscow area, etc.). More commonly, traditional use localities occur where resources are normally harvested or where rituals or ceremonies are recurrently performed. Obviously, a wide range and variety of resources discussed below and landforms are associated with these uses. The diversity of such resources will be discussed below in this section.

To Indian traditionalists, archaeological sites mark where ancestral use of the land occurred, representing the eternal bond with the land. This attachment constitutes a strong sense of place. The importance of archaeological sites from this vantage is measured in socio-cultural terms, where the value is related to the maintenance of individual and community self-identity. From the western technological society perspective, the archaeological record has been the focus of much scientific research in the Northwest, particularly since the 1930s (Cressman 1936, 1940). Though some areas are still little documented, such as the upper Columbia basin area in northern Idaho and Montana, the association of sites with specific landforms has been defined for other areas. Changes in the mobility patterns and land uses of the American Indian broad-based traditional economy has been a persistant theme in anthropological studies (Ames and Marshall

1980: 29; Ames 1990; Fowler and Fowler 1990; Aikens 1993).

The three physiographic regions of the Columbia Basin, Northern Great Basin, and Klamath region have seen varying amounts of archaeological research. Much of the archaeological work conducted in the Plateau has been associated with the many hydroelectric projects. Key sources marking the cumulation of archaeological information include: Krieger (1927); Daugherty (1956, 1962); Osborne (1957); Cressman et. al (1960); Swanson (1962); Fryxell and Daugherty (1963); Warren et. al (1963); Warren (1968); Grabert (1968, 1970); Browman and Munsell (1969); Nelson (1969, 1973); Leonhardy and Rice (1970); Rice (1972); Brauner (1976); Dancey (1976); Hammatt (1976); Irwin and Moody (1978); Butler (1978); Galm et. al (1981); Dumond and Minor (1983); Schalk (1983a, b); Thoms (1984); Campbell (1985); Chance and Chance (1985); Chatters (1986); Thoms and Burchardt (1987); Reid (1991). Southeast Oregon has been a frequent region of archaeological study since the 1930s when Luther Cressman launched a series of projects designed to establish the antiquity and other characteristics of high desert prehistoric land use (Cressman 1936, 1942; Cressman et. al 1940). Research projects in specific subregions over the past two decades provide extensive descriptions of the material culture and interpretations of past lifeways. Other key sources of archaeological and paleo-environmental information include: Cressman (1937); Weide (1968, 1974); Butler (1970); Bedwell (1973); Fagan (1974, 1988); Pullen (1976); Pettigrew (1979, 1984, 1985); Toepel et. al (1980); Loring and Loring (1982, 1984); Beck (1984); Jones (1984); Willig (1984, 1988); Wilde (1985, 1989); Mehringer (1985, 1986, 1987); Mehringer and Wigand (1986); Andrews et. al (1986); Cannon and Ricks (1986); Wigand (1987); Aikens and Greenspan (1988); Hanes (1988a, b); Pettigrew and Lebow (1989); Oetting (1989, 1990); Jenkins and Connolly (1990); Cannon et. al (1990); Fowler (1993); and, Aikens and Jenkins (1994). Several comprehensive overviews for the region have been written in recent years (Aikens 1978, 1982, 1993; Cressman 1986; Meatte 1990). As in the adjoining Northern Great Basin, the pioneering archaeological research in the Klamath River drainage was by Luther Cressman. Key sources of information include: Cressman (1940, 1956); Aikens and Minor (1977); Mack (1983; 1991); and Sampson (1985).

In sum, research projects identified above, as well as numerous cultural resource management field surveys by agencies and consultants have established an extensive body of knowledge concerning the character of Northern intermontane archaeological sites. Three basic site categories compose the northern intermontane precontact archaeological record: rock art, rockshelter and open site. The "open site" category represents a wide range of archaeological manifestations including "artifact clusters" (commonly labelled "lithic scatters"), "rock features" with or without chipped and/or ground stone debris, "residential features" (surface depressions and rock rings) sometimes with associated cultural debris, "toolstone procurement areas" such as quarries and dispersed raw material localities (float and ejecta); and artifact "isolates". Characteristics of each shall be briefly described below.

Occurrence of rock art consists of one or more elements pecked, ground or painted on a rock surface, usually either on a boulder or outcrop face. Rock art is commonly found near water courses and along rimrock of suitable stone surfaces, including large boulders at the base of talus slopes along the edges of valley floors. Rock art is not as pervasive across the landscape as most

of the site types, having only limited distribution in most areas. The most prevalent occurrence in the northern Great Basin is in Warner Valley and along the Owyhee River. Some key areas also include the mid-Columbia region (Keyser 1992). Rock art has cultural and public importance normally exceeding that of scientific use. Occurrence of rock art is often an indicator of resource-rich location and may be an indicator of group gathering areas. Scientific interest the regional patterning of various elements, perhaps suggesting contact between groups or replacement of one group by another in a region. Culturally all such sites are important, posing as tangibles reminders of ancestral use of the region. From the scientific perspective an important rock art locality normally should display a relatively large quantity and diversity of elements, contain an element or elements unusual for the region, or be definitively associated with a datable open site or rockshelter.

Rockshelters/caves include habitation, storage or human burial locations bounded on at least one side and at least partially overhead by a rock outcropping, often containing dry, dark organic stained stratified soils and preserved perishable cultural debris. The sites are commonly found along water courses and rimrock, except for lava tube caves in the northern Great Basin. Importance is derived from preservation of fibrous/organic materials representing a broad array of activities not represented at most open sites. This site type commonly has stratigraphic integrity and can be absolutely dated, though many do not, as well, having shallow deposits or moisture access from geologic formation fissures. Due to natural boundaries of the associated geologic formation, this site type offers a confined association of activities allowing greater opportunity for interpreting the archaeological record. Deposits are protected from the effects of deflation, a common threat to open site integrity, but the majority have been looted, confounding the stratigraphy and diminishing their scientific research value.

Artifact clusters include spatially associated lithic artifacts with no associated cultural features. The "scatters" are of varying density, ranging from low quantity/low diversity chipped and ground stone assemblages to high quantity/high diversity sites. In the northern intermontane, the clusters are largely composed of expedient chipped stone tools and manufacture discard debris. Normally, cluster boundaries are diffuse and difficult to precisely define. Low density (and correspondingly low diversity) clusters are pervasive along ridges and vistas and on stream terraces/benches along water courses with less accessible steep stream banks with aggrading soils; at relict spring locations; and, along lakeshores. High density/diversity artifact clusters are commonly located along broad, shallow intermittent water courses; dune locations containing chipped and groundstone tools and fishing items; at spring locations; in canyon bottoms; at the confluence of streams; and, at upland settings around ponds where plants were available for spring harvest. Recent studies assessing the role of sample size influencing the diversity of materials observed in artifact clusters clearly indicate that commonly assigned behavioral categories of "long term base camp" and shorter term "field camps" cannot be confidently assigned to northern intermontane sites without other factors being considered, such as positioning relative to physical environment, existence of house remains or storage facilites, or presence of ecofacts (bones, plant remains, etc.) (Thomas 1990: 282). Low density sites may either represent brief intensive occupations (base camps), or, more likely, infrequent limited activity occupations (field camps) or resource extraction locations coincidental through time.

Clusters with high density artifact clusters are assumed to represent a relatively large amount of activity (particularly if largely non-manufacturing and more from tool use and discard), although whether this represents intensive occupation (base camps) with a broad range of activities occurring within a limited period of time, or more limited site use (field camps/locations) over a long period of time with distinct activities occurring on separate occasions is not known. They are more likely a palimpsest representing the occurrence of all three site types through a lengthy time span (Thomas 1989; Beck and Jones 1990). Inferences based on landform and hydrologic associations may be more relevant than assemblage content for most scatters with no cultural features.

Rock features include alignments (circular and linear), cairns, and hunting blinds not associated with habitation sites. In drier regions they are commonly found at constricted access locations, such as canyons and overlooks at springs. In wetter hydrologic basins, they may be found along lakeshores and the top edge of rimrock in overlook locations. The features allow for functional interpretation of past site activities, a rare opportunity offered by open sites in the region. these sites may have low visibility due to being overgrown with brush and trees in woodland areas. The fragility of these dry-laid features makes them vulnerable to damage from many types of proposed activities.

Primary toolstone acquisition locations are commonly characterized by spent cores and primary reduction flakes. Like secondary lithic procurement areas, toolstone procurement sites are commonly high quantity and low diversity assemblages, representing limited activity locations unless accompanied by other tool types or cultural features, such as adits. Geologic outcroppings suitable for toolstone generally dictate spatial distribution. Such extensive obsidian procurement areas do naturally occur as float and ejecta. Distinctive chert sources occur thorughout the region, such as a well-known "picture agate" on Idaho/Oregon state boundary. An extensive distribution of chert float occurs in many stream courses and alluvial slopes.

Isolates are singular occurrences of portable artifacts. These are pervasive across the landscape of the region. Of limited anthropological research value, they are informative on a regional basis for indicating intensity of land use in broad areas.

Another form of open sites are "village" sites, a label assigned to sites containing intact features, such as housepit depressions, hearths, storage facilities, house/habitation living surfaces, and rock ring foundations. [Note: human burials are not considered archaeological in nature based on the Native American Graves Protection and Repatriation Act]. Dark midden sites occur at marsh edges where marsh resources were procurred. Substantial habitation is inferred by depressions found on gravel benches a few meters above stream courses, lake shores or sloughs. These sites are significant when found in contexts which can be absolutely dated (Greenspan 1990: 228). Sites with intact habitation features are of greatest anthropological interest among the open site types in the northern intermontane. They normally contain a broad diversity of tool types and toolstone and may include midden soil development, house depressions or rock ring foundations or preserved living floors. These sites reflect an adaptation to the physical environment, not well reflected in ethnographic information for some areas, such as upland

settings in the southern Plateau and in valley bottoms in the northern Great Basin.

Consequently, archaeological and traditional use sites are contained within cultural landscapes with certain site types (villages, base camps, field camps, simple locations, quarries, rockshelters/caves, rock art, root grounds, berry fields, fisheries, hunting locations) found in certain locations. Many traditional settlement locations and campsite "places" are now towns and cities.

In sum, the people continue to live in or near their sacred lands where visual evidences of their socio-cultural attachment in the form of landscapes, traditional use localities and archaeological sites are experienced daily. The land and its features serve as constant reminders of their spiritual identity. Because of this, adoption of a secular utilitarian attitude toward ancestral lands has been resisted.

Resources Uses

The climate of the northern intermontane region varies considerably from the well-watered valleys of the Kutenai and Coeur d'Alene subsistence areas to the semi-arid high desert of Shoshonean country. In this diverse region, native plant and animal species have been utilized through the millenia for food, medicine, shelter, craft production, firewood and fuel, commerce, and social and religious symbols.

Most peoples in the intermontane prior to non-Indian arrival participated in a lively commerce, trading goods with many others within the region and in adjoining regions. The various treaties signed in the mid-19th century recognized that the harvesting of plants and animals constituted both a means of economic subsistence and the foundation of native culture. Aboriginal rights were reserved to assure the peoples' right to maintain essential elements of that way of life. To-date, only a few resource use rights have been adjudicated in the courts, most notably fisheries in which States' involvement in off-reservation fishing was decided. In *U.S. v. Oregon*, Columbia River tribes' treaty fishing rights were upheld in a 1969 landmark decision. Hunting, gathering and grazing issues have not been so adjudicated in much of the interior Columbia Basin, though in *State v. Tinno* they were addressed for the Shoshone-Bannock tribes in southern Idaho.

Though European land ownership concepts are foreign to traditional American Indian societies in the region, patterns of resource use have always been clearly defined and mutually respected. "Ownership" of plots for settlements was recognized in addition to nearby fishing locations, berry and root patches and tracts used for hunting and trapping. Continued use of native plants and animals in this traditional manner is an essential component in maintenance of cultural identity. A complete assessment of contemporary plant use can be gained only from the Indian peoples themselves; and more appropriately sought on a more geographically local basis than this project currently offers.

necessary for villages, with supplemental protein coming from fish and mammals." Further west in the Columbia Plateau, Hunn (1980: 8) states that the bulk of "calories was no doubt provided by the abundant and varied edible roots." Similarly for the northern Great Basin, Fowler (1986b: 92) stated that a significant proportion of the diet was derived from plants and plant products.

Even though some physiographic and botanical characteristics are similar in much of the northern Great Basin and the Southern Columbia Plateau (Prouty 1994: 577), actual plant utilization varies significantly. Basic categories of culturally used plants include roots, celeries, berries/fruits, and nuts. Industrial use also includes other floral types such as sedges and grasses. The term "root" is used here to include "all underground storage organs" such as roots, tubers, bulbs, corms, rhizomes, etc. (Couture et. al 1986: 159).

Several socio-cultural and natural factors have traditionally influenced plant harvests, and even plant behavior. People exercise "a certain degree of selectivity in harvesting their floral environments" (Fowler 1986b: 64). Plant species are not necessarily selected in a given area based on relative abundance and availability. One species may be more valued than other locally more abundant food plants (Couture et. al 1986: 156). For example, one root plant grows only in limited areas in the Harney Basin but is sought out due to a "high return on investment of time and energy" (Couture et. al 1986: 156). Such gathering activities, normally performed by women, require knowledge, skill and technological expertise (Hunn 1990: 122). Often before harvest for root plants begins, women may check several areas, first evaluating such factors as size of plants available and softness of soil to dig in. Roots may then be test tasted for "ripeness" and ease of peeling.

In regard to natural factors, cultural plants are the region's most restricted traditionally-used resources in terms of time and space. In the mid-Columbia area, Hunn (1990: 107) describes "complex phytogeographic patterns" represented by lomatiums, available at different times in different places. The plant foods are predictably found in the same locations annually with varying proportions of species in each location dependent upon minor variations in topography and water availability. In much of the northern intermontane, a strategy of seasonal upslope mobility is employed for adequate annual harvest, with plants maturing first on sunny south slopes (Hunn 1990: 107). Therefore, plant gathering camps are traditionally established progressively further from and higher above river valleys and main settlements from April through June. Historically in the Columbia Plateau, people residing in riverside settlements would move up along stream courses turning up each major tributary canyon with the women often climbing to the ridges to dig the root plants (Hunn 1990: 123). In the mid-Columbia area of the Columbia Basin, one important root species is harvestable in early April at an elevation of 500 ft., where it is readily accessible from permanent residences (in precontact times from riverside fishing villages) and it is still harvestable in late June at 6000 ft. (Hunn 1990: 107). The actual digging for cultural root plants normally occurs in small dispersed groups of women.

In the northern Great Basin "the numbers of individual plants available in a given area will annually vary depending on periodicity and amount of precipitation" (Housely 1994: 564).

As noted for the Harney Basin, most herbaceous growth occurs in a short period during spring and ends with loss of soil moisture in early summer (Couture et. al 1986: 155). Similarly in the mid-Columbia area, optimal conditions for the harvest of many species only lasts a few days at a given locality; thus timing of plant harvest critically relies on the careful reading of microhabitat effects on plant growth (Hunn 1990: 106). Food plants in the region are found in areas with particular soil composition and water-holding capacity. Intervening areas between resource patches are often used for camping and hunting. Use of a particular area depends on relative density, size and frequency of plants.

A number of important plants occur in lithosols (rocky, shallow soils). Therefore, it is considered by some that "root grounds remain relatively stable because they typically occur on thin Floke and Olson soils, which cover geologically stable bedrock sub-strata, and retain water very well" (Prouty 1994: 577). Such lithosols, favored by geophytic, tuberous roots, are common in the region but dispersed, making large associated camps often impractical (Hunn 1990: 127). These ecological settings are commonly found in upland areas characterized by volcanic basalt ridges and scarps, scabrock flats, and playas, in many areas capped by shallow soil associations on "bald" patches of exposed basalt which favor roots (Prouty 1994: 577). Spring use of lithosol plant communities of the upland areas would provide various roots and celeries for foods and medicines. Consequently, throughout the northern intermontane the lithosol-oriented spring plant collection constitutes a highly significant time of the year.

Of course, many important cultural plants grow in other soil types, with camas being an important example found in upland meadows. In lowland dune settings, various seeds were commonly harvested by late summer. In the fall, other seeds and possibly wapato could be found. With the proper amount of water, lakeshores could provide year-round palustrine marshland resources of tule, cattails, sedge roots, and willows (Housley 1994: 564). In contrast to much of the northern intermontane, the Klamath's primary cultural plant use centers around marsh/lake lands (Housely 1994: 569).

First-fruits ceremonies directed at "maintaining an abundant supply of roots, berries, game, and fish," in addition to numerous other events, are celebrated at longhouses, shorthouses, Shaker Churches and private homes. These ceremonies serve an integral role in maintenance of community well-being. These resources also serve to mark other annual feast days. Each marriage, naming, funeral, first kill, and even Sunday Service may include a meal of traditional foods. Plants particularly play a role in worldview by serving as sources of spiritual well-being. Big sagebrush, a most respected plant, is used in ceremonies; it's burning often signifies purification. Crushed sage is a medium through which messages are taken to spirits. Tobacco can have special importance in acquiring curative powers. In sum, plants remain an important focus for present-day activities, including ceremonies and subsistence uses (Kuhnlein and Turner 1986).

Use of many types of resource locations, such as root grounds, were often shared with a number of communities as well as other ethnic and linguistic groups (Ray 1936: 117). Root gathering is often associated with large groupings; comprised of members of several ethnic

groups, a festive event though actual digging is normally not related with groups but done on a family or local group basis (Couture et al. 1986). The social nature of root camps is still important (Couture et.al 1986: 155). One root camp in the northern Harney Basin of southeast Oregon is used simultaneously by Northern Paiute peoples from Warm Springs, Owyhee area, Yakama, Fort Hall, Fort Bidwell, and Fort McDermitt. Such gatherings have a long tradition and occur no doubt more frequently than is commonly known by non-Indians. For instance, the camas digging period in Kalispel country along the Pend Orielle River was "a time of much inter-tribal visiting and gaming...(with peoples) from the Spokane, Coeur d'Alene, Colville, Flathead, Pend Orielle, and even Kutenai came, with the permission of the Kalispel..." (Cote 1980: 10). In precontact times, coastal groups would travel as far east as the Nez Perce root ground near present-day Moscow, Idaho (Ames and Marshall 1980: 28). In the Klamath region, people would converge at late summer wocus gathering areas, particularly the Klamath Marsh, from a large surrounding territory for several weeks (Gatchet 1890: 28). The considerable movement and socializing historically enjoyed is still an important socio-cultural factor today.

With hundreds of native plant species available, traditional pharmacology focused on prominent pre-contact conditions such as colds, sores, and digestive problems. Wounds, bruises, sores, and rheumatism were often treated with ground leaves or roots prepared into ointments and poulticies. A wide variety of minor ailments (colds and digestive problems) were frequently countered with oral medicines. Roots, leaves, flowers, or entire plants were made into teas, or boiled and the resultant liquid drank (French 1981; French and French 1979).

Plants, like fish, are collected commercially as well as for subsistence and ceremony. For instance, camas root in Coeur d'Alene country is normally abundant and a large surplus is gathered for trade (Walker 1978). Similarly, roots from the northern Great Basin are involved in an extensive trade network (Prouty 1994: 579). Cultural root plants have long been major trade items by the Harney Valley Paiute (Couture et. al 1986: 157).

In addition to socio-cultural and economic importance, traditional foods have a high fiber content and are rich in essential vitamins and minerals, well preserved by traditional drying technology (Hunn 1990: 283; see also Konlande and Robson 1972). Nutritionally, these provide carbohydrates (sugar and starches) and trace elements. For instance, the carbohydrate yield from yampah for the time and energy expended is relatively low in the Great Basin, but the plant is nutritionally high in certain dietary mineral values (Couture et. al 1986: 157). Berries and other fruits provide important quantities of ascorbic acid. The cellulose and hemicellulose of plants also provide necessary dietary bulk (Keeley 1980; Norton et. al 1984). However, most native plants are low in protein; thus the need for meat and fish, and with a low fat intake, increased need for carbohydrates.

In the semi-arid intermontane subregions which experience long and short term climatic variations, plant resources represent resilient and highly adapted organisms to a variable, unpredictable environment. Native peoples are commonly described as flexible and opportunistic in implementing their harvest strategies year to year. As described by Housely (1994: 569),

> The plant communities...are mosaics composed of many different plant species that respond differently to fluctuating weather and climatic changes. Individual plant species are not dependable or predictable; however, the very diversity of the plant communities can always be counted on to provide some form of food resources.

The geographic occurrence of some native species have been artificially manipulated to some degree. Today some wild species are transplanted for convenience of access. In the Harney Basin such plants include several berry and fruit species (Couture et. al 1986: 157). Other plants are either encouraged or tolerated for their convenience including willow, dogwood, some root plants, some grasses, and sedges.

In summary, many native plants continue to be used for ceremonial, subsistence, commercial and medicinal purposes and for manufacturing of objects (e.g., baskets, cradleboards) for personal use or sale (see Fowler 1990, Schlick 1994, and Wilke 1988). These traditional activities occur frequently out of sight of the public and with little knowledge of the land managers (Harbinger 1964; Couture 1978; Couture et. al 1986: 157). Recent years have witnessed a renewed interest in plant use by many peoples in the region. Youngsters are being taught traditional ways and "root feasts" are held at some schools. Such a renewal is seen as socially rewarding and important for maintenance of traditional activities that provide continuity with the past and reaffirmation of Indian identity (Couture et. al 1986: 158). Traditional plant use reflects resilience and persistence, common themes in the intermontane region (see Hanes 1982).

Wildlife

Hunting is an important economic supplement to the traditional diets of many of the northern intermontane Indian communities, and serves a significant socio-cultural role. Though beliefs and customs with respect to animals varies considerably across the northern intermontane region, there are some common patterns. For example, animals are not regarded as some subordinate order of beings present at the convenience of humans, but rather as other-tahn-human persons with whom humans establish relationships. Indian identification with animals (and plants as well) is a key characteristic of traditional Indian life and is fundamental to Indian world view. Consequently, the taking of game animals is a rite of passage, a central ingredient in masculine identity. Prayer, pleading and reverence are necessary to hunt so that animals may consent to be captured. Generally, wildlife is estimated to account for only 10% of total calories in traditional diets (Hunn 1990: 118). Exceptions would be the traditional Plains-like bison hunters in the eastern portion of the intermontane. Except for the Yakamas who required formal permission, aboriginal hunting territory of one interior Columbia group was generally open to another (Ray 1936: 119).

In the northern Great Basin, the principal large wildlife species were deer, pronghorn and bighorn sheep; to the north and east in the Columbia Basin were also moose, elk, and bison, and in several areas bears were hunted for meat as well as fur (Fowler 1986b: 79). In addition,

during summer in Fort Rock Basin, yellow-bellied marmots were harvested in the talus and rock outcrops. In the fall, communal rabbit drives and pronghorn hunts were conducted, thus adding an important social dimension to the resource use (Couture et. al 1986: 154). Some groups, such as the upper Kootenai, followed a typical Plains lifestyle, spending a good part of the year on the Great Plains bison hunting (Walker 1978). Bird hunting was also a common practice in the intermontane (Fowler 1986b: 82).

In the upper Klamath River region, waterfowl is of major interest (Spier 1930: 159), not only for food subsistence purposes, but very importantly for spiritual purposes. An example of the latter is use of duck eggs for annual first sucker ceremonies.

Animals are considered powerful and can thus help or hinder a person's ability to progress through life. Thus animals constitute a major class of spirits. The power to cure disease frequently comes from such animal spirits (Fowler 1986b: 96). Fish and wildlife laws are regarded with disdain by those who view the respectful taking of such animals as their natural, aboriginal right.

Other Resources

Reptile and insect foods are poorly reported in the anthropological literature and currently addressed by tribes when discussing resource issues. Frequently caterpillars, grasshoppers, frogs and lizards are all that are represented in the scientific literature. They are not known to be important in today's diets (Fowler 1986b: 88). Consumption of snakes, lizards and frogs continue to be rare. Like sculpin, horned lizards and rattlesnakes are respected and feared in some areas (Hunn 1980: 11). These species may be significant because of mythological connections although they are of no substantial subsistence importance. Use of inorganic materials in traditional manner is still sought in some areas, but information is not well known.

Environmental Influences

A major implication for ecosystem management strategies and goals is recognition of what is a "natural" condition for vegetative communities. Contrary to many of the beliefs of non-Indian emigrants arriving in the region in the 19th century, the interior Columbia Basin and adjoining areas were <u>not</u> pristine wilderness areas, but ecological systems in which humans had been an active component for millenia (MacCleery 1994; Woolfenden 1993). Disruption of regional traditional lifeways in the 19th century led to substantial ecological changes. These changes highlighted the previous interactions which, in some instances, contributed to keeping at bay certain ecological states, such as maintaining low fire fuel build-up and inhibiting forest encroachment on non-forested settings.

Most groups manipulated or otherwise managed portions of their environments in various ways. Aboriginal use of fire to maintain or select certain vegetative states or manage wildlife

has received substantial attention in recent years (Fowler 1986b: 93; see Robbins 1994). It is perceived that fire was a more common component of nature's life cycle and for millenia it was introduced by humans through perhaps a combination of intentional and unintentional actions. The general benefit of fire is to increase valued non-woody species and decrease biomass stored as wood.

Adoption of the horse by Nez Perce, Cayuse, Bannock, and other interior Columbian groups in the 18th century introduced major environmental change to the region as well. Some broadcast sowing of wild seeds was also performed in the Great Basin, at times combined with burning. Intentional and unintentional pruning of willows for basket fibers also occurred (Fowler 1986b: 94). The transplanting of some species for convenience purposes, particularly near substantial settlements, was perhaps far more common than perceived today.

Certain hunting and fishing practices reflect a conservation ethic, such as catching principally male trout and salmon on the spawning beds and restricted fishing at nights or on certain days, thus allowing a portion of fish to pass. Selective digging techniques employed in plant food harvesting and the time of harvests for native plants and animals also embody conservation elements. There is a strong desire not to intensively harvest species so as to eradicate them from a particular area, but rather to sustain their presence in familiar locations.

Most importantly for land managers, many tribal members today still possess intimate indigenous knowledge of the ecological adaptations of native species in the isolated geographic pockets where the species persist today, and hence a sense for potentially useful "indicator" species.

The above discussion of the nature of resource and landscape use by American Indians illustrates, among other things, the relationship of food sources to religious beliefs, to ceremonies, to rituals, to other people, to the deities, to water, sun, and air, to time greater than one year, and to the land. The cyclical concept of Indian worldview has been often capsulized by non-Indians with traditional annual rounds of resources represented by two-dimensional linear seasonal round graphs (Fig. 8 and 9). However, a strongly cyclic life has even more to do with basic philosophy and world view that subsistence economies. The next section explores the modern-day management issues associated with the multiple interests briefly highlighted in this section.

IV. Projection of Future Directions Based on Current Situation

Current Interests

In reaction to the perceived shortcomings of existing public land management strategies, tribes consistently state that key issues driving ecosystem management should focus on protecting and restoring sustainable, healthy and harvestable populations of fish, wildlife and plants, rather than commodity timber and forage production. The latter should only be derived after the former is adequately addressed.

Due to past and current federal land use activities and increasing private development in the region, substantial issues have evolved that will continue to grow in severity if remedies are not applied soon. Predictably, given the general nature of American Indian spirituality, the pervasive attachment to place, and the long term reliance on native plants and animals in the region, interests and concerns of the Tribes today are far ranging.

Health and Community Well-being

Most fundamental of all is individual health, community well-being and spiritual health. Treaty rights and statutory protections, together with Constitutional rights, establish primary social constraints that should form the basis of all management strategies considered for the intermontane area. Federal policies to-date have not commonly recognized tribal interests and sovereignty. Due to the variation in treaty rights and characteristics of spirituality in the region, each tribe must be consulted separately in this regard. The occurrence of culturally important resource-based ceremonies has markedly declined in some areas. As an example, the Klamath are now trying to reassert the role of such ceremonies to enhance community well-being and self-identification. A host of ceremonies are involved, including drought, sucker, wocus, and root foods. Some are held for the community-at-large, others by individual families. There is a deep concern in Indian country that the people have become separated from culture. Another concern is that scientifically-based decisions may not agree with Indian beliefs. To complicate this potential incongruity, many tribes today are confederations of historically diverse peoples who likely still retain different beliefs and customs. Yet tribes often as homogeneous organizations.

Personal health issues are also involved. Loss of land base, forced relocations, disruption of traditional economies and the web of kin relations, and marked vascillation of federal policy has been substantial. Depression and hostility are characteristics of modern oppressed social and ethnic enclaves. Chronic health problems are associated with poverty, psychological stress and diet changes. The change to foods high in fats and carbohydrates over the past century undoubtedly has contributed to increased incidence of hypertension, heart disease, diabetes, and obesity. This increased reliance on processed, non-traditional foods is leading to increased incidence of circulatory problems and disease in the American Indian population, including

diabetes to which the Indian population already is more genetically prone than the U.S. population in general. Other health costs include increased DUI cases, high suicide rates, and mental health in which loss of self-worth, prestige and status is related to loss of access to traditional resources and a land base. Some forms of these social impacts are associated with the current decline of timber and fishing economies on the Northwest coast in non-Indian communities. A current emphasis within tribal communities to increase use of traditional native foods is seen as a remedy to reverse this dire trend. The current direction regarding increased cumulative effects on native species is contrary to social needs trends. Consequently, increasingly restricted access occurring under current management strategies to traditional use sites as addressed below poses serious social implications.

In sum, current federal land use strategies do not effectively address socio-economic issues including access to culturally important native species (considered "treaty resources" in many cases) and sacred sites. Consequently, each EIS alternative in existing land use plans should have been analyzed in regard to costs, benefits, and risks to American Indian cultural and economic concerns. The almost complete lack of maintained local government to government relations is the major contributing factor. A basic factor behind agencies not considering culturally important plants to-date is that they are generally not recognized as threatened or endangered, or as commercially valuable (Keith and Corliss 1993).

Land

Erosion in the tribally held land base has been dramatic over the past 150 years, especially through treaties, 1880s reservation consolidation policy, allotment plans, and termination acts. Tribes now experience access problems to important locations even within reservation (or former reservation as the case of the Klamath) boundaries. Another source of property right reductions have occurred throughout this century in the form of land tenure decisions by federal land management agencies. These losses continue today as lands pass out of the public domain either through sales and land exchanges, or special use agreements, which effectively limit or exclude access by affected American Indians. When lands pass out of public ownership through exchanges, access to traditional use areas and treaty resources may be diminished. The same may be said for many forms of development on public lands, including rights-of-way issuance, mining, and other activities that alter native vegetation, diminish habitats or hinder access. Again, these effects may occur when tribes are not adequately consulted, or when American Indians are grouped with the general public. Tribal input into proposed land actions is critical in the future. Common tribal concerns are that new industries often come into the region, such as Canadian mining companies, and take resources out while putting little back into the earth.

Water

Cumulative effects of current land use activities on watershed quality is of paramount interest. Water is critical for the management and health of all other resources. Consequently, as noted in previous sections of this report, water is the most sacred substance on earth to traditional native peoples. Water is frequently characterized as the bloodline that runs through

the veins of the land (see Meyer 1983: 37). Regarding the Yakama, Uebelacker (1984: 19) further describes water as a "major regulator" regarding rate of growth of native species, distribution, and migration. Without water, there would be no roots, meats, fish or berries. In addition, numerous family and community sweat houses involve daily swims in cold springs, streams, and rivers. Until just recently, such waters were and may again be where ritual morning baths are taken as a part of a cultural lifeway. Since foods gathered from the land may be processed nearby, clean water may be a factor not just for drinking, but to thoroughly clean, or to emerse as a part of an overnight leaching process. Therefore, factors such as sediment delivery to streams, channel morphology, water temperature, streamside riparian zones, point and non-point source contamination, water quantity, and flow timing are of key interest. As with other tribes, the Klamath report major wetland losses, an important issue where pluvial ecosystems are dominant and endemic species abundant. Improving water storage capacity of riparian areas is a desired goal. In addition to their effects on fisheries discussed below, the dams constructed throughout the region have changed the Columbia River ecosystem from a riverine environment to a more lacustrine setting resulting in warmer waters and changes in plant and animal communities (Bailor and Minthorn 1994).

Irrigation practices dating back to 1866 are also of grave concern (Moore, Willey, and Diamant 1994: 17). Waterspreading is a current issue tackled by the tribes. Urban growth trends, such as in the Bend/Redmond area, pose major threats to water quality and quantity. Compaction of soil from grazing and timber harvesting reduces water infiltration, among other things. Greater soil erosion from those same activities also reduces fish habitat and reservoir storage capacities. Stream impacts from past logging practices are also well known, including siltation, and clogging streams or reduction of large woody material in streams.

Water rights issues are fundamental to water quality and quantity concerns. Two types of water rights are pertinent to tribal water issues. One is related directly to water associated with reservations to sustain tribal lifeways. The second, which is unique to Pacific Northwest tribes, is in-stream flow to sustain off-reservation treaty resources (most specifically fisheries, but likely all other treaty resources including terrestrial and aquatic plants and animals) as established by case law (see Winters Doctrine and Winans case). The Shoshoni-Bannock participated in water rights adjudication in 1987 under the McCarran Act which addressed general stream water rights for the Snake River Basin. Tribal water rights within the boundaries of the Fort Hall Reservation, and on certain reserved lands outside the reservation, were agreed upon. Tribes assert that water rights were never ceded along with the land in the Stevens and Palmer treaties of the Columbia Basin. Therefore, water is considered another off-reservation asset. Under current strategies, water rights issues are largely unresolved. The next decade or two may see to what extent reserved rights are defined, including access to quality water and surface water places.

Fisheries

Perhaps the most visible result of current public land use strategies is the demise of fisheries. Traditional fisheries, including "usual and accustomed places," are especially at risk

at a time of record low anadromous fish runs in the Columbia River system. As noted in Section II, rights related to fisheries have been the subject of more court action than other treaty resources. Consequently, case law has mounted commensurably with at least two long standing cases (*U.S. v. Oregon* (1969) and *U.S. v. Washington* (1974)) remaining open to continue resolving conflicts over treaty resources. Treaty fishing rights are considered as property rights held by Indian tribes (see *Memonminee v. U.S.*). Recent case law (the Boldt decision and subsequent affirmation by the Supreme Court in *Washington v. Washington State Commercial Passenger Fishing Vessel Association* (1979) has established the right to take up to 50% of the harvestable portion of salmon and steelhead runs destined to pass traditional tribal fishing sites. As a result, the courts established that non-Indian fishing must be limited to protect the Indian share. Absent specific authorization by Congress, Indian treaty rights cannot be abrogated (*Menominee Tribes v. United States*, 1968). Other arrangements have also been made for tribal access to traditional fisheries. The Coeur d'Alene tribe has an 1988 agreement with the State of Idaho defining the extent of off-reservation hunting and fishing rights. The Kutenai Tribe of Idaho retain hunting and fishing rights from the Hellgate Treaty, reaffirmed through case law in the 1970s.

To the tribes, treaties represent more than a guarantee of access to traditional fishing locations; they also are considered to provide a guarantee that a harvest level equivalent to their traditional subsistence and commercial use shall be maintained. The "Indians reserved a permanent right of access to their traditional fishing grounds in combination with their natural right of capture...(but) were not guaranteed a livelihood from commercial fishing by modern standards..." (Beckham 1984: 123). The question that public lands must be managed in a way to ensure existence of the resource at harvestable levels has yet to be resolved.

The historically abundant fisheries of the Northwest were sufficiently prominent to capture the attention of all non-Indians who visited the area early on, non-Indian use of the resources began early in the contact period. Export of Columbia River fish by non-Indians began in 1829 by visiting fur trader ships. Major commercial harvests began by The Hudson's Bay Company in the 1830s and 1840s with local Indians serving as fishermen (Beckham 1984: 56). Introduction of gill nets on lower Columbia occurred in 1853 (Beckham 1984: 58). Indian labor dominated the industry until introduction of the canning era in 1866. Fish wheels began to be introduced on the Columbia in the 1870s which harvested large quantities of fish (Meyer 1983: 41). Since these early days of Columbia fisheries, radical alteration of the natural river system has occurred leading to the disintegration of the fisheries.

Examples of the loss of fisheries are numerous. Celilo Falls represented a major fishery and significant gathering location for many groups in the region (Schoning et. al 1951; Walker 1992). The location consisted of dozens of rocky points and ephemeral islands. As noted in Section I, these locations usually were owned by a resident family and an erected scaffold served as a fishing platform (Hunn 1990: 93). Following its flooding by reservoir filling in 1957, the four mid-Columbia tribes received monetary compensation for the loss. However, despite compensation unemployment on nearby reservations increased dramatically as a direct consequence (Hunn 1990: 292). Further upstream, completion of the Priest Rapids Dam in 1962

"buried another key Indian fishery as well as the most sacred points of contact linking the Wanapum people to their past (Hunn 1990: 292). Still further upstream on the Columbia River, the Chief Joseph Dam cut off more than a thousand miles of spawning gravels upriver. The Grand Coulee Dam, completed in 1941, also led to extermination of spring Chinook salmon runs in the upper basin. For the Colville tribes, their fishing industry was "obliterated" by construction of the Grand Coulee Dam; in addition, the ceremonies and traditions associated with the fisheries ceased as well (Fredine 1994). In addition to its upstream impacts, the Chief Joseph Dam also affected the run of fish further downstream on the Columbia River as well. To Colville tribal members, this loss was not only physical and cultural, but also psychological, as well, with a feeling of guilt and shame by those tribal members who helplessly witnessed such losses.

In pre-contact times, the Klamath reported to have valued seven species of suckers. Now five are left. Of these species, three are listed as endangered and two are on sensitive lists. As a result, the annual first sucker ceremony, an important community series of events, has also become almost extinct. For the Lost River drainage, the Klamath report major watershed deterioration in the past thirty years.

Similarly, Shoshonean fisheries on the John Day, Powder, Burnt, Owyhee, and Malheur rivers, with focus on salmon, steelhead, and smelt, substantially declined with increased agricultural and mining development in the late 1800s. Construction of the Columbia Basin dam system added further to the demise. Restoration of native anadromous fish runs on the Malheur and Owyhee rivers, which are completely blocked at present, is a major concern of the Burns Paiute. As with the other resources discussed below, the loss of these resources "has resulted in the breakdown and loss of a vast amount of cultural knowledge and ritual" (Couture 1994: 6).

Setting parameters for cold water fish in watersheds is a priority. Associated with these parameters is the need for developing and performing analyses to identify locations and conditions of spawning and rearing habitats of anadromous and resident fish by lifestage and species. A key measure of satisfactory condition of fisheries is the maintenance of harvestable (not just viable) levels of populations of fish species. Normally, only the tribes are in a position to identify differences between viable populations and levels necessary to meet subsistence needs. Recently developed desired future condition models, goals and recommendations in the Systems Operations Review (SOR) project should be incorporated in this project. Maintenance of access to "usual and accustomed places" is an associated important interest.

Despite treaties with tribes and trust responsibilities of the government, eight major federal dams are established in the Columbia Basin (Bonneville, The Dalles, John Day, McNary, Ice Harbor, Lower Monument, Little Goose, and Lower Granite). Four lower Snake River dams were completed in the 1970s as tribal harvests were dwindling. The Corps of Engineer (COE) mainstem Snake River dams in an upstream sequence include Ice Harbor (1961), Lower Monumental (1969), Little Goose (1970), and Lower Granite (1975). Other primary COE dams include the Dworshak Dam (1973), constructed on the North Fork of the Clearwater River; the Albeni Falls Dam (1955) on the Pend Oreille River; the Libby Dam (1975); and the Hungry Horse Dam (1952) on the South Fork of the Flathead River. Non-Federal dam projects are also

in place, including those by the public utilities districts of Douglas, Chelan, and Grant counties in Washington. These include the Wanapum and Priest Rapids dams. In addition, are numerous other dams for water storage and hydropower generation on tributaries, such as in the Deschutes River basin (Pelton, Round Butte, Wickiup, Crane Prairie, and Crescent Lake).

Dam locations have usually occurred, for obvious design reasons, at places which were best suited for traditional fishing techniques. Therefore, not only are the migration patterns of the anadromous fish greatly affected by the gauntlet of dams, but the traditional fishery locations themselves were destroyed. In ascending order:

Bonneville Dam - the Cascade Rapids fishery
The Dalles Dam - the Celilo, Tenino and Spearfish fisheries
John Day Dam - the John Day Rapids and Blalock Rapids
Priest Rapids Dam - Wannapum, Priest Rapids, and Whitebluffs fisheries
McNary, Grand Coulee (BOR) and Chief Joseph (COE) dams - preempted runs to the upper Columbia River drainage.

Before 1957, commercial fishing by Indians was concentrated at Celilo Falls while non-Indian commercial fishing extended from the mouth of the Columbia River to the mouth of the Deschutes River. Since completion of The Dalles Dam and as a result of *U.S. v Oregon* (1969), the principal commercial, subsistence and ceremonial fisheries management area shared by the Warm Springs, Umatilla, Yakama and Nez Perce tribes today on the Columbia River is between Bonneville and McNary dams (referred to as Zone 6). A number of the tribes, such as the Confederated Salish and Kootenai, do not have the Columbia River within their traditional subsistence range, and therefore do not participate in the Zone 6 fishery. As the rivers' available catch decreased, conflict between Indian and non-Indian fishers has increased. The tribes have had no commercial fisheries for summer chinook (wild or hatchery) since 1964 and no commercial fisheries for spring chinook since 1977. Tribal fisheries for spring chinook have been limited to ceremonial and subsistence catches. Indian fishing in the Columbia from 1957 to about 1966 met with very little success.

Four Columbia basin tribes recently received monetary compensation for loss of ancestral fishing sites inundated by dam construction more than a half century ago. As an example, the construction of Bonneville Dam inundated 37 fishing sites and the government had agreed to replace the fising sites at the time of construction. The Department of Interior and the Corps of Engineers will spend $57 million over five years to build 29 new fishing sites, including boat ramps, docks, campgrounds, and other facilities to improve river access.

So few fish are presently in the Clearwater Basin that the Nez Perce tribe has not had a fishing season in most of the tributaries for nearly 20 years. Until about 1930, prior to construction of dams on the lower Clearwater River at Lewiston and Harpster, the Clearwater's diversity of species allowed an almost year round harvest of food. Some families still fish commercially, but they must do so on the Columbia River itself.

Today, salmon fishing on the upper Columbia River occurs within a complex web of regulations, treaty rights, biology and politics. Under a long-running and still open federal court case (*United States v. Oregon*), the complex Columbia River Management Agreement was developed under the lead of the State of Oregon to define management authority over upriver fish runs. The agreement involves the states of Oregon and Washington, the four mid-Columbia River tribes with reserved fishing rights, and the federal government. Presided over by a U.S. District Court Judge, the agreement determines the number of fish annually available to the tribes and the parameters tribes should follow in issuing permits to their members. Under this agreement Indians have confined their fishing almost entirely to areas above Bonneville Dam. As part of the agreement, the government must give tribes 10,000 salmon a year. This total included 1,500 spring chinook in 1994.

In addition, the Northwest Power Planning Council was created to develop a plan, titled *Strategy for Salmon*, to restore fish and wildlife loses resulting from construction of the region's power plants. Funding for implementation of the plan is to be provided by the Bonneville Power Administration but the 15 Columbia basin tribes are having to use political clout to make the funding available. The Northwest Power Planning Council has implemented policies for the upper river tribes replacing resident fishery programs for lost anadromous fisheries.

The years 1994 and 1995 were apocalyptic in regard to fisheries decline. In 1994, predictions of spring chinook salmon run was at 22,500 above Bonneville Dam, down from 111,000 in 1993, one of the strongest years historically. The previous low was 46,000 in 1984. The precipitous drop came after non-Indian commercial gill-netters and sports fisherman on the lower Columbia River were granted extended seasons in the early spring. Tribal fishermen, whose season is later and further upriver, were subsequently short of salmon needed for ceremonies central to tribal spiritual and cultural life. Initially, the Yakama came to agreement with the states concerning limited additional ceremonial fishing on the upper Columbia River. But, due to the shortage of fish, Yakama tribal members fished at Willamette Falls under a special agreement with the State of Oregon. In addition to the above fishing restrictions, Oregon, Washington and Idaho closed sportfishing seasons on tributaries of the Columbia above Bonneville Dam. In 1995, some first food ceremonies were delayed in hopes of salmon arriving and others held, but just having roots without salmon. Tribes have recently had to freeze spring salmon due to low summer and fall runs. The low runs have also led to closure of traditional fishing platforms and curtailment in use of gill nets..

Currently, hatcheries contribute 70% of the upriver Columbia spring chinook run and 50% of the summer chinook run. The most threatened of the chinook are those that travel to the Snake River. The 1994 spring and summer chinook runs in the Snake were among the worst historically. In 1992, the U.S. listed Snake River sockeye as endangered and the Snake River spring-summer and fall chinook runs as threatened. In 1994 the Snake River wild chinook run was reclassified from threatened to endangered. Not helping after years of drought, the stream runoff in the Snake River Basin was less than half of normal. Another contributing factor has been the occurrence of a multi-year El Nino which has disrupted the ocean food chain leading even to the disappearance of a smelt run for the first time historically. The latter is considered

a significant indicator of poor ocean productivity.

The tribes believe they are being asked to give up their way of life while irrigators, non-Indian fisherman, and hydropower have proceeded largely uninterrupted. To exercise treaty rights is to recapture and maintain the core of Indian society and forge a sense of identity in the youth. Salmon fishing in Alaska has not been curtailed and dam operations and irrigation in the Columbia Basin had continued through 1994 almost unchanged. The tribes accuse the National Marine Fisheries Service of allowing hydro operations to continue uneffected by the salmon plight. The meager remains of the former cultural staple makes every fish a major celebration. The tribes believe they have historically been very patient with government measures for maintaining fish runs.

In 1995, the Columbia River Inter-Tribal Fish Commission has released a salmon recovery plan significantly different from one developed by the National Marine Fisheries Service. The tribal goals for the Columbia River drainage include "gravel-to-gravel management" to rebuild wild and naturally spawning fish runs by protecting the habitat including the planting of native plant species along stream banks, by changing hatchery management and practices, by operating the hydro-system for fish as well as power and by continuing harvest regulation. The emphasis is on returning fish to natural spawning beds rather than hatcheries. The tribe plan seeks to restore salmon runs in the Columbia and Snake rivers and restore commercial fishing above Bonneville Dam. The plan calls for higher restoration levels than State and Federal plans authored by the Northwest Power Planning Council and the National Marine Fisheries Service. It also addresses stealhead, lamprey and sturgeon populations. At the core of the plan is the premise embraced by tribes that treaties go beyond simply ensuring their right to fish to requiring that the fish must actually exist to catch. Tribes are now more forcifully stating a position that the activities that kill most of the salmon and prevent salmon from surviving are the ones that must be most restricted. How much these activities should be cut back according to the tribes depends on the degree of damage they have been individually inflicting. It is believed, the hydrosystem must change if salmon restoration is to become a reality.

Thus, Federal activity demonstrated to the tribes a lack of regard for the future of salmon and tribal treaty rights. To the tribes, depletion of salmon runs in recent years bears grim witness to non-Indian domination over the Columbia Basin's fish and habitat. As recently stated by the Columbia River Inter-tribal Fish Commission,

> Over the past several decades, while the tribes have closed fishery after fishery to conserve the resource, in the hope of protecting and rebuilding this ancient and priceless cornerstone of their culture for future generations, non-Indians have prospered from cheap power, cheap water, and subsidized grazing, agriculture, and logging. These industries have prospered, in part, by being allowed to destroy the fish which are the heart of the tribes' treaties and culture.

The deleterious effect of dams on fisheries have rendered hard-won treaty fishing rights virtually valueless (Meyer 1983: 54). The major overriding factor was loss of juvenile

downstream migrant salmon. The proportion of wild fish has declined considerably and smolts fluctuate greatly. Such dam effects were foreseen by tribal members in their testimony at public hearings prior to construction. The dams, besides blockage, introduce nitrogen supersaturation below each one. Many of tribes have heavily depended upon Columbia River fisheries and "depletion of in-river stocks can be equated, in non-Indian terms, to a multi-million dollar loss of resource value each year" (Meyer 1983: 35).

A good deal of "hopelessness or outrage" has been experienced by the tribes as a result (Meyer 1983: 61). This loss, together with the loss of the tribes' best agricultural lands largely through the allotment period, dealt a crippling economic blow to tribal communities. It has taken decades to begin to overcome and remedy this situation. In regard to the dams, the tribes have regretted not fighting their construction more forcefully (Meyer 1983: 68).

In sum, salmon runs have been declining since the 1960s. Dam construction and operation have been commonly considered the primary factors in fish depletion. Salmon must get past numerous dams on the Columbia and Snake rivers to reach spawning grounds. Altering hydropower operations to assist young salmon going to the ocean and spawning salmon moving upstream increased as an issue in early 1994. Watershed condition is seen as a key contributing factor to the decline in fish populations. For example, the construction of roads in watersheds is a major tribal concern since the related surface disturbance introduces exotic species and the roadbeds alter hydrology of the watersheds and travel routes of wildlife. Other major problems effecting fisheries include stream sedimentation, removal of vegetation and grazing in riparian areas.

An economic assessment in the early 1980s concluded that renewed fisheries provide one of the few real opportunities for economic revival of mid-Columbia tribes (Meyer 1983: 49). The report also quoted Alan Pinkham of the Nez Perce Tribe as stating, "Renewing these fisheries is just a responsibility that we should recognize as a people. That we harvest some resources from our mother, the Earth, and that we should also maintain a conservation of these resources ourselves and be responsible for any conservation..." (Meyer 1983: 79).

Remedies for the existing fisheries loss are varied and broad sweeping. Aside from major changes concerning how the hydropower facilities on the Columbia River system are operated and changes in habitat management in watersheds, other measures have been identified. These measures include: (1) sponsoring of treaty rights workshops over the past several years; (2) strengthening of fisheries standards and guidelines in agency plans; (3) training of tribal fisheries staffs; (4) introducing fish supplementation programs using hatchery fish raised in simulated stream environments; (5) developing outplanting sites and satellite rearing ponds as part of tribal hatcheries; (6) fish passage improvement projects; (7) establishing challenge cost-share projects for fisheries habitat improvement; (8) coordination of land management across land ownership boundaries; and, (9) establishing collaborative management arrangements.

An example of tribal involvement in current remedies is Coeur d'Alene Tribe's participation in the Coeur d'Alene Restoration Project, the Natural Resources Damage

Assessment, the Coeur d'Alene Lake Management Plan, and the Bunker Hill Super Fund Project among other more limited projects. Similar interagency groups exist in Montana, including the Montana Interagency Coordinating Group.

Native Plants

Fisheries are not the only resource addressed by treaties in much of the project area that is at risk under current management strategies. Typically poorly addressed is the protection and enhancement of cultural plant habitats (of the many species of root and berry plants discussed in Section III) important for subsistence, spiritual, medicinal, and utilitary use. Even the more arid lowlands of the interior Columbia Basin, where landscapes appeared rough and uninhabitable to the region's emigrants, offer diverse resources for the traditional indigenous people. An isolated example worth recognizing is the BLM's Biscuitroot Cultural Area of Critical Environmental Concern (ACEC) in the Harney Basin.

Since the establishment of the Oregon Trail corridor in the 1840s, plant resources have been impacted by a variety of competing land uses. These factors include the introduction of "nonindigenous herbivores" and exploitative resource uses, such as the diversion and storage of water, timber harvest, farming, ranching, recreation and mining (Fowler 1986b: 64). Competition with non-Indian peoples, exotic species invasion, and treatment of cultural plants as "noxious weeds" by land managing agencies have also posed major impacts on public lands. This combination of factors on Federal lands coupled with state/county classification of plants as undesirable thus targets for chemical spraying and losses in private lands have further adversely impacted root, berry and medicinal plant source areas.

Loss of plant resources and access to traditional use areas on private lands has increasingly through the years placed focus on reservation and federal lands in past decades. However, where some plant resources are uncommon or stressed on reservations, as in the case of a traditional harvested lomatium on the Umatilla reservation, sources are sought further from home on private or public lands in order to satisfy ceremonial and subsistence uses. Hunn (1990: 99) has observed that "many Lomatium species are restricted in range today, being rare and little known relict populations."

Initially, the massive introduction of exotic grazing species including cattle and sheep in the latter 1800s led to the extensive transition of bluebunch wheat grass communities to hardier sagebrush steppe east of the Cascades. The Klamath today recount the grazing effects on huckleberry areas. The introduction of cattle grazing was followed by the tilling of millions of acres leading to a massive ecological disruption. Diversion of surface and ground water for wells and irrigation increased aridity of some areas, increased slope erosion and soil salinity, and eliminated or reduced some species numbers valued as foods, medicines, and manufacturing materials. Fire suppression, stock grazing and regeneration of clearcut timber harvest areas have also eradicated, or surpressed certain cultural plant species, or plant gathering areas.

A related trend has been the construction of thousands of miles of roads, many of which

are poorly maintained and no longer used for their intended purpose. Concerns prevail for restoring timber roads to productive habitats along with restoration of former wet meadows, and regulating competition over special forest products with non-Indians (including newly arrived ethnic groups who have focused on the economic value of plants) (Hanes and Hansis 1995). A recent legal case on the Warm Springs Reservation where non-Indians were found harvesting roots before tribal first food feasts and selling them to elders illustrates the complaint of many Indian people who see their foods exploited and traditional ways disregarded. The treaty-tribes are quick to highlight that the newly introduced ethnic groups often are not "citizens" as referred to in the treaty language.

Restoration of many native species and their habitats is a common objective among the tribes. Much experimentation is yet to be performed on proper procedures to maximize restoration success, such as for camas reintroduction to meadows. Changes in abiotic factors, such as soils and hydrology, through historic times greatly complicates restoration efforts today. Such changes necessitates the initial steps of preparing habitats for successful restoration. The Klamath have recently been reintroducing wild plum into the Hog Creek drainage.

A major issue associated with cultural plants is their identification, both from a culturally sensitive basis as well as its practicality for non-Indians. Traditional Indian plant categorization differs from that of the western technological society's. For instance, many native languages use sounds not used in the English language, some of which convey concepts for plants and their relationship to the environment and culture not directly translatable to English. In addition, is the inequality of native plant categories to European plant taxonomies. Often names not only reflect species differences, but seasonal differences as well, as the plants proceed through differing seasonal forms. Such differences in taxonomy are multiplied by inter-tribal variations. Tribal taxonomic systems may be more broad or more specific than the Linnaen system. Thus, some plants may not be individual distinguished by European taxonomy systems. Further confusion can be introduced by inter-tribal variation in plant importance as well as temporal variation. Solutions to these concerns are yet to be explored through Federal/Indian consultation in many parts of the region.

In sum, the native plants of the uplands, especially those non-habitat indicator/non-commodity cultural plants, have been largely ignored in current Federal management plans and should be a focus of management equal to forest overstories. Eradication of exotic plant species is another fundamental issue in need of greater emphasis.

Native Wildlife

Tribes take exception to the manner in which public agencies commonly treat wildlife management. Agencies have normally viewed hunting, as well as fishing and gathering, as strictly leisure recreational or commercial activities. Deer and elk are managed primarily for sporting purposes, fish for recreational and commercial purposes. Tribe traditionalists consider wildlife on a broader social basis, as described in Section III. Consequently, wildlife

management assumes a more fundamental socio-cultural importance recognizing wildlife's continued role in the subsistence diet and its link to cultural, spiritual, and physical well-being.

For the above reason, wildlife enhancement is a common tribal objective in the region. Prescribed measures include use of wildlife-oriented seed mix for reseeding purposes, rather than reestablishing species solely for domestic livestock grazing. Restoration of species now missing, such as gray wolf, grizzly bear, and moose in Nez Perce country, is now sought. Similarly, vanishing species of cultural importance in the Umatilla region include bighorn sheep, grizzly bear, sharp-tail grouse and wolf. The Yakama add rabbits and bird species to this concern, with the latter suffering a large decline attributable to pesticide usage of in the region along with other factors. The Klamath express considerable concern toward the loss of waterfowl. Overall, established standards and measurements are needed to evaluate and provide for the success of species survival.

Concerns surrounding the hunting of deer and elk emphasized by a number of the tribal communities involve limitations, or exclusions to hunting in traditional use areas. In the case of the Quartz Valley peoples, a mountain immediately adjacent to their small reservation, which was once jokingly referred to as their "meat market" (a primary source of deer meat for community and family dinners) is currently held in a special use agreement and access to the mountain has been denied to reservation members. Such concerns are frequently tied to relatively recent restrictions that are imposed through either state's fish and game department regulations, or federal land managing access policies. Often, these policies are developed and implemented in absence of government to government consultation efforts, or even less formal coordination.

The occasional public outcry that tribal members have treaty reserved rights, which appear on the surface as special interest use rights, usually surfaces when tribes use areas "out of season," or at a place different than permitted for the general public by states. Educational efforts by both federal agencies and tribes of the county, state and federal agency employees could be useful to minimize differing expectations of treaty right uses and federal trust obligations.

Sense of Place

As discussed in Section III, the relationship between land, natural resources and Indian people can be expressed in terms of "place." The meaning of a particular place to people may well increase as people repeatedly experience traditional life activities there, as for example through residence, travel, camping, food acquisition/processing, religious/social gatherings, spiritual experience, legendary stories, individuals' rites of passage, loss of loved ones, or contests. The collective cultural images of a landscape and how Indian peoples have interacted with the natural world help form distinctive sets of geographic knowledge and perceptions. Understanding the nature of attachment to different places forms the basis for identifying and assessing potential impacts posed by proposed actions.

A counter analytical approach to biophysical science assessments from a social science

perspective is the use of experiential land units (or "experiencesheds") as opposed to watershed analytical units now commonly being employed by public agencies (Tuan 1977: 7). Rather than abiotic factors, such as regional hydrology, defining the boundaries of meaningful places to humans, the landscape may be characterized more directly from a human behavior perspective. The use of experiencesheds for analytical purposes may more accurately capture traditional Indian attachment to the landscape when performing land use assessments.

The loss of feature distinctive places has happened repeatedly and are often a point of lament as this loss also diminishes the significance of the traditional place names. Therefore, alterations to the landscapes may actually pose a threat to the fundamental meaning of a peoples' self-identity (Greider and Garkovich 1994: 14). Examples of such loss include a unique rock formation along the north side of the Columbia River in the vicinity of the Maryhill Museum. The place name refers to a rock in the form of a craddle board with reference taken from a legendary story of how Celilo Falls came to be and how up-river people were assured of salmon. This place name was used by Lewis and Clark in their expedition notes and again by Governor Stevens in the 1855 Yakama Treaty to refer its resident band of people. In the Klamath Marsh area and Chiloquin community of Oregon, there are similar stories with counterpart rock features also no longer in existence having been destroyed by use of explosives.

In central Idaho, a resident anthropologist fears a spring place said to bond visitors to the homeland of the Nez Perce could be unwittingly destroyed by the highway department without consultation with the tribe. In south central Idaho a large meadow area exists where Shoshoni peoples annually gathered to dig native foods and to trade/socialize with neighboring tribes. The historic conversion of this place to farm land helped spark the 1878 Shoshoni-Bannock conflict that spread into northeastern Oregon. Even its English name, "Camas Meadow," refers to its historic-featured food crop, which is now a rare species at this site. And today, on the Gifford-Pinchot National Forest the 1932 verbal agreement between a Forest Supervisor (Brockhart) and a mid-Columbia River Indian chief (Yallup), called the Hand Shake Treaty, is still honored by both parties. This agreement allowed a named traditional berry field place to be equitably used by Yakama peoples and the American public; preserving a portion for exclusive use by Indian people to ensure preservation of treaty reserved rights from competitive/non-traditional use.

A process approach to place management has occurred between the Forest Service in consultations with the Salish-Kootenai Tribes of western Montana. This relationship has helped preserve specific land features/places and, consequently, federal projects often proceed with sensitivity displayed to sacred places through open dialogue with the tribes.

Cross-cultural studies by anthropologist in the field of tophonymy (study of place names) have documented the profound significance place names have for traditional peoples, serving as a framework for cultural transmission, group identity, self-esteem, and moral instruction (see Hunn 1994). In turn, Federal understanding and preservation of the indigenous sense of places can provide both cross-cultural insights about humanity and help maintain a unique living aspect of our nation's patrimony. Hunn suggests steps useful for understanding interior Columbia basin cultural diversity against a universalist background: (1) compiling an exhaustive and accurate

inventory of native language names for the elements of the semantic domain "place" for linguistic analysis; (2) map the referential meanings careful to preserve the native perspective; (3) record the broader cultural meanings of place by recording associative stories illustrating the roles places play in peoples daily lives and through participant observation; and, (4) describe named places physically and ecologically, and document photographically for use in cross cultural comparisons. Such documented information should most appropriately be retained by tribes as sensitive materials and shared with federal agencies only through open-ended consultation for the purpose of considering such places in land management. In this manner, American Indian communities may find their concern for their oldest places thoughtfully and, perhaps, sensitively considered.

Loss of access to and introduction of intrusions into geographical locations of sacredness is a key issue. Such occurrences can lead to significant losses of religious freedom. Walker (1991: 100) has noted an "ongoing revitalization of traditional non-Christian religious, extending back to at least the 1930s." The geographical location of rituals is a vital element to the success of the rite since the site conveys fundamental symbols. Thus, the integrity of the site is crucial and any loss may infringe on the customary practice of the religion. This protection of social geography is considered in many places of utmost importance.

Federal/Indian Relations

Due to the unique legal standing of tribes, maintenance of appropriate government-to-government relationships constitutes a key issue not addressed by many current management strategies. This consideration involves acknowledgement of tribal sovereignty and the protection of traditional locations and treaty rights/resources. A major interest of the tribes in the 1990s is the definition of the role of Indian tribes in public land management decision-making processes. Tribes are not to be treated as special interest groups, another federal agency, a sub-governmental unit like a state, or county, or members of the general public, e.g. recreational users. In addition, U.S. trust responsibility may not be met by seeking compromises between protection of treaty rights and accomodating competing non-Indian interests. Treaty rights to certain species of plants and animals, in addition to fish, have cultural, spiritual, medicinal and economic values that vary by tribe. That ecosystem strategies should ensure substantial and sustainable yields of resources important to tribes is a universal goal of the tribes. The tribes firmly believe agencies should view treaty rights positively, as opportunities, rather than as hindrances.

A major concern of tribes has historically been the large number of Federal agencies, plus non-Federal organizations, with whom tribal governments must interact. Numerous projects and programs are simultaneously demanding attention, yet many never seemingly produce observable results. For this reason, tribes commonly view new efforts, such as ICBEMP, with skepticism and must be convinced first before allocating time and energy to the activity. Almost all tribes wish to see consolidation of Federal efforts. The large amounts of paperwork associated with these efforts is also viewed with skepticism and distrust.

Despite the many forums of interaction, confrontations with Federal agencies occur and

are normally carefully chosen actions by tribes; not taken lightly. Such forms of interaction result from considerable intra-tribal debate, proceeding through a complex and time consuming process potentially involving multiple technical committees, the governing tribal body, and , possibly, the general council of all members.

To establish effective relationships, consultation procedures with each of the affected tribes should be developed. Consultation constitutes a formal process of negotiation, cooperation and policy-level decision-making between tribal governments and the Federal government; a bilateral decision-making process of two sovereigns. Consultation, consisting of technical and policy-level meetings, is not just an event, it is a process leading toward a common understanding in the form of a common decision. Consultation is not notification of a tribe that an action will occur and it does not automatically lead to agreement. Rather, consultation is an accounting of the Federal decision-making process in regard to a particular issue or action. Most importantly, consultation consists of communication that leads to mutual understanding and trust.

The consultation process begins after the Federal agency contacts the tribal government to advise of an impending project proposal that may affect a tribal resource, tribal land, a tribal right, or some other issue and the tribe responds that it wishes to initiate consultation. The early part of the process commonly consists of meetings of the respective technical staffs to discuss technical and legal issues. They then brief their respective decision-makers to develop informed opinions and recommendations. Ultimately, the Federal and Indian decision-makers meet to discuss the decisions made and their rationale.

Often responses or decisions from tribal officials are perceived as slow in coming by Federal employees. Tribes believe decisions can often have generational influences and thus must be carefully weighed. Therefore, a system of time-consuming "checks-and-balances" within tribal governments and societies safeguard against rapid responses that may pose unforeseen or otherwise avoidable consequences to tribal interests.

Other relevant issues include conformance with existing tribal land use plans and ordinances by agencies and sharing of technical expertise. Tribes have considerable natural history expertise, through both long term oral tradition and more recently assembled technical staffs.

Other administrative interests expressed by tribal members include revision of out-dated management systems that could impede implementation of ecosystem management procedures (such as the 1872 Mining Law) and inclusion of private lands in the regional management strategies).

Sensitivity and accomodation of cultural differences should be a cornerstone of Federal/Indian relations. Indian interests and "testimony" on resource issues are "often not readily assimilatable into non-Indian technical decision-making processes" (Meyer 1983: 1). Cultural differences in perceiving the importance of natural resources and land is distinctly highlighted when discussing the importance of anadromous fisheries to Indian peoples. It has

been noted that, in general, "Indian people tend to be more conservative respecting actions...and have often used local knowledge to identify dam-related fishery problems well in advance of technical consensus...(therefore, they) should be given considerably more weight in salmon management and protection decisions" (Meyer 1983: 2). Particularly insightful information and answers are often held collectively by the tribes' older generations. Social scientists have a useful role in the process of mediating between indigenous and scientific knowledge systems.

Other issues raised regarding relations with Federal agencies include:

- building personal contacts as key to building trust
- paperwork is post-colonization process detracting from on-the-ground achievements
- active court cases, such as water adjudication, river dams, bombing range complicate information exchange on other projects
- coordinaton among Federal and other public agencies
- funds should be diverted to restoration projects rather than more studies
- greater coordination of BLM and FS management standards and guidelines
- tribes are busy with local issues in addition to the numerous Fedeal initiatives
- increased tribal involvement in cultural resource assessments to guarantee that religious and traditional use interests are more adequately addressed
- develop agreements and hire tribal liaisons within agencies to guard against nullification of progress or adverse changes when Federa managers move on
- pressure to participate in many planning projects; tribes must weigh priorities
- consultation process must be meaningful; does not consist of notification
- consistency is a concern when dealing with many administrative Federal units, within and between agencies
- agencies need no further authorities to work with tribes than already exist
- officials seem to often come to the table with their minds made-up

In sum, an integrated, holistic approach to resource management that addresses all resource and river uses within entire watersheds, including consideration of cumulative effects, is closer to American Indian traditional perceptions of the natural environment than strategies espoused by public agencies in the past. This approach should, therefore, be formulated and implemented in an environment of cooperative government relations.

Human Burials/Archaeological Sites

The destructive nature of archaeological research (especially disturbance of human burials) and interpretations of Indian culture history without tribal participation has inevitably led to conflicts between traditional Indian communities and Euro-American archaeologists. Increasing sensitivity to American Indian interests, and the contribution of research results to the substantial body of knowledge of ancient history of Indian cultures accessible for tribal use has begun to ameleorate the situation (Sprague 1993).

From the tribal viewpoint, there is practically no acceptable rationale for disturbing human remains. The transformation of bones to dust takes a long time and some tribal members believe that this process must proceed to completion unimpeded before the individual is able to go to the next world. Federal agencies and the public are asked repeatedly to respect such religious beliefs.

The greatest impacts on burials and archaeological sites on public lands in the northern intermontane are posed by Federal aagency activities and illegal artifact looting. Some agencies estimate that approximately 90% of surface exposed sites have been selectively collected; most rockshelters and caves have been significantly dug, and many rock art sites have been vandalized. Even quarry locations may be affected by rockhounds and modern-day flintknappers. The major consequence of these activities is that sites are destroyed and artifactual materials distantly removed from their traditional areas. Development projects initiated by modern-day human uses of the landscape are quite varied and consequently pose different levels of impact to sites. These project types commonly occurring on Federal lands with the potential to effect burial sites include dam and reservoir construction, timber harvests, road construction, development of recreation sites and range improvements. Two of the more potentially damaging federal actions on Forest Service and BLM lands are mining developments and land tenure adjustments where sites leave public ownership.

Another major impact on sites throughout the region is posed by natural processes, including weather-related (lake and stream erosion, deflation, cryoturbation, storms), biologically-related (faunalturbation and floralturbation), and geologic-related (colluvial and alluvial processes) (Wood and Johnson 1979; Schiffer 1987). These impacts are pervasive and persist regardless of human activity in the region, beginning at the time of site abandonment.

Rock art is generally not susceptible to "surface impacting" projects except as projects expose them to secondary impacts. They are susceptible to high temperature fires, such as wildfires. Fuel loads in vicinity of rock art panels should be cleared prior to prescribed burns. Land exchanges, mining activities, reservoir and road construction projects, recreational site construction, and recreational events pose significant threats to important rock art sites. Looting and vandalism are major threats to this site category.

Rockshelters/caves are commonly not susceptible to the "surface impact" project effects given the obstruction posed by landforms to the projects. Like rock art, they are susceptible to land exchanges, mining activities, major road and reservoir construction projects, recreational site construction, and recreational events in addition to erosion control measures which could divert moisture to rockshelter deposits. Looting is the major impacting agent. Therefore, any changes in access in the areas containing undisturbed shelter deposits should be considered in proposed development projects.

This type of site has limited integrity of artifact patterning of both surface and subsurface; site looting poses a greater concern (ARPA enforcement) rather than development projects (Section 106 requirements). Because the importance of National Register eligible sites lies in their buried components still encasing and preserving fine-grained artifact patterning, impacts

from most of the "surface" projects such as timber cutting and grazing will be minimal. Disturbance would be largely confined to the "trample zone." From these projects (which simply add to other post-depositional processes ongoing at or near the surface), materials will still be clustered and largely unaltered for stylistic and chemical analyses.

Rock features are susceptible to land exchanges, mining activities, major road and reservoir construction projects, spring developments, and pipeline and water trough placements. However, rimrock locations are not typically impacted by most "ground disturbing" activities.

Intact habitation features are very vulnerable to damage from many types of proposed activities due to the often well preserved context associations of the features and artifacts and the preservation of stratigraphic contexts. They are susceptible to land exchanges, mining activities, major road construction projects, recreational site construction, recreational events, and implementation of erosion control measures, and should be carefully evaluated prior to disturbances. Looting is also a major impacting agent. Therefore, any changes in access in the areas containing undisturbed residential feature sites should also be considered in proposed development projects.

Existing Policies and Management Strategies

Partly in response to the above current conditions and trends, a number of the interior Columbia Basin tribal governments have developed land use plans, adopted policies, and expanded staffs to influence changes. These various forms of actions directly reflect tribal interests, and pose examples of management strategies useful to protect and enhance those interests.

With court decisions in the 1970s affirming tribal management authorities over hunting and fishing in certain prescribed areas, tribes have become increasingly active in developing tribal fish and wildlife programs rather than relying on federal agencies to manage fish and wildlife resources.. These programs vary greatly in intensity and success, depending on tribal leadership, amount of funding and the staff to implement the programs. In addition, inter-tribal organizations, such as the Columbia River Intertribal Fish Commission (CRITFC), Affiliated Tribes of the Northwest, and Upper Columbia United Tribes (UCUT), have been established to represent tribal views before other entities and technically assist the tribes in other ways. CRITFC was established by the Yakama, Umatilla, Warm Springs and Nez Perce tribal governments, UCUT by Coeur d'Alene, Kootenai Tribe, Kalispel and Spokane.

The newly established Salmon Youth Corps is a unique inter-tribal program aimed at educating youth and providing restoration to stream habitats in a Civilian Conservation Corps-like organizational approach. This program involves the Nez Perce, Umatilla, Warm Springs and Yakama tribes.

Examples of specific tribal development include the following cases. The Nez Perce

established a Fisheries Department in 1981 which is active in research and hatchery projects. A wildlife department was added in 1987. A comprehensive land use plan has been recently adopted, but has limited distribution due to sensitivity of resource information. The Confederated Salish and Kootenai Tribes have a very active fish and wildlife program, including establishment of wildlife refuges. The fisheries program began in the mid-1980s. The focus has been reestablishment of fisheries lost to dams through construction of hatcheries. The Wildlife Program, established in the late 1980s, includes habitat acquisition and habitat improvement projects, such as cattail management and construction of canada geese nests and grizzly bear and bald eagle management efforts. The Tribal Lands Program oversees many aspects of Tribal land tenure and development of comprehensive land use plans for the reservation. Since 1982, the Water Management Program has monitored water quality, and wildlife and fisheries programs.

The Coeur d'Alene have been conducting inventories of streams and the Kootenai have constructed a sturgeon hatchery. The Umatilla expanded its tribal government and programs in 1966. On the other hand, as of 1990 the Coeur d'Alene Tribe and Kootenai Tribe of Idaho did not have fish and wildlife biologists.

A number of tribes have developed and adopted land use plans. For example, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) have prepared a Integrated Natural Resource Management Planning System (Northover and LeMieux 1992). Tribal goals include: protection and exercise sovereign tribal and individual rights; maintenance of cultural integrity; optimal development of tribal resources within the Reservation and in ceded lands; and, development of relationships with other organizations and governments that recognize tribal sovereignty and which can assist in protection of tribal rights and interests. A relevant mission of the Plan is to protect CTUIR political integrity and economic security, extend tribal policies beyond ceded areas to the "zone of influence," and further define related trust responsibilities. Basic resource categories identified include Life Sustaining (water, air, fisheries, wildlife), Protective (cultural, wilderness), Productive (forestry, range, agriculture, minerals/energy), and Developed (transportation, housing, commercial/industrial, community/infrastructure). The zone of influence is defined by a CTUIR "Intertribal Relations Boundary" identifying lands in eastern Oregon and Washington, northern and central Idaho, and western Montana where CTUIR maintain interests. Also identified is land use zoning for tribal lands within the Reservation boundary, allowing for a broad range of land uses in different areas. In addition, the Umatilla Tribal Water Program has adopted a wide range of objectives and tasks to protect tribal water interests. These include establishment of instream flow needs for various streams and obtaining water rights sufficient to fully support the Tribe's treaty and cultural resource rights.

A forest management plan for the Yakama Reservation provides another excellent example (Yakima Agency 1993). As stated in the document, the plan "forms a strategy designed to guide the forestry program...(that) seeks to maintain biological, social, cultural, and economic uses of the forest ecosystem for the period 1993-2002..." (Yakima Agency 1993: II-1). The plan contains guidelines for protection of important cultural values. For example, timber harvest-activities in important forest fringe settings should consist of small sales with low-impact logging methods; buffering certain types of watercourses; avoidance of root grounds by haul roads and skid trails;

long periods between timber harvests; and, silvicultural prescriptions emphasizing enhancement of wildlife, foods, and medicines (Yakima Agency 1993: III-6). Protection of salmonid habitat is specified in terms of water quality, stream channel morphology (occurrence of pools and large woody debris), stream substrate composition and condition, culvert installation, and riparian buffer parameters. Further considerations are made for timber harvests in riparian areas given shading needs for water temperature considerations, closure and revegetation of unneeded forest roads, and harvests on upland settings.

The Yakama Indian Nation have also approved resolution T-92-87 and developed a Land and Natural Resources Policies Plan which espouses goals, policies, and appropriate uses of land and resources on the reservation (Johnson-Trussell Company 1987).

The Warm Springs tribes have several resource management programs underway, including enacted Tribal laws, actions of the Natural Resources Department, Water Control Board, and the Geographic Information System Center (Moore, Willey, and Diamant 1994: 8). Enacted laws include the Integrated Resources Management Plan, Water Code, Stream-side Management Plan, and ordinances for Fish and Wildlife, Grazing, and Zoning and Land Use.

The Warm Springs tribes, in collaboration with The Environmental Defense Fund, has been developing an ecosystem management planning document for the Deschutes River Basin in Oregon (Moore, Willey, and Diamant 1994). Purpose of the project is to "promote sustainable development and ecosystem protection strategies" in the basin, sustaining both economic development and natural ecosystems with a particular emphasis on water and fishery resources. Recognition that "all elements of the natural environment are linked and must be treated as such" is a cornerstone of the tribal direction. In particular, analysis is concerned with instream flows and water quality including non-point source pollution, streamflow depletion, and fisheries decline. The decline in fisheries is seen as an indication of "serious" ecosystem decline in the Northwest. The report concludes that water quality deterioration from non-point sources is significant, with substantial contributions from irrigation activities and grazing. Also recognized is that some promising initiatives are currently being undertaken by both public and private entities, but that there is little coordination, priority setting or synthesis. Consequently, efforts overall are piecemeal and at times redundant.

V. Implications of Differing Management Policies and Scenarios

Indicies for Measuring Effects

Assessing the possible effects of various land management policies and strategies on tribal interests necessitates reliance on subjective measures. Sensitivity of the interests and possibilities of future litigation, both related to the existing general low level of trust between the tribes and the U.S. government, in addition to the relatively broad geographic and topical scale of the Interior Columbia Basin Ecosystem Management Project, currently inhibits development of quantifiable measures. The two basic factors concerning measurement of effects are the nature of issues identified by tribes in the region (see Section IV) and the relative implications each of the actions pose to species groupings, places of interest and governmental relations. Application of these measures will necessitate participation of the various tribal governments through the assessment process.

As part of the ICBEMP project, three indicies are considered for assessment of potential impacts posed by EIS alternatives. The indicies are described below.

(1) cultural species availability

This variable should be considered as a "public lands output" of any proposed management strategies rather than a limiting factor. Through treaties with the Federal government and regulatory acts signed over the past 30 years, Indian nations have reserved rights and recognized interests to harvest a broad range of native plant and animal species. Therefore, sustainable harvest levels of the various species should be a management goal. Availability of these species is considered by Indian governments a trust responsibility of the Federal government. Inadequate quantities can lead to substantial effects on community well-being because numerous social activities center on the harvest, preparation, and consumption of the resources.

This index involves both the <u>occurrence</u> of and <u>access</u> to the relevant resources. Occurrence of culturally important plant species may be measured through linkage with existing dominant overstory categories or associated soil types. Degree of access is determined by judging the potential effects that a number of anticipated impediments may be posed by differing management actions. Occurrence may be quantified in acres of linked dominant overstory or population estimates of species individuals; access will be measured on an ordinal scale ("+" for increase, "0" for no substantial change, "-" for decreased access). The combination of the two subfactors necessitates use of the ordinal measure overall. For purposes of this project, the evaluation will be conducted and displayed on the subbasin scale

A comprehensive identification of individual culturally important species in the

intermontane is beyond the scope of this project and is viewed as legally and ethically inappropriate by many Indian peoples as well. Given the traditional powers of such knowledge within Indian society, and, the currently increasing competition with non-Indians over collection of species such as beargrass and mushrooms, it can be readily construed as violation of Federal trust that information concerning such important resources be made readily available (see Uebelacker 1984: 128). Besides, Federal land managing agencies normally focus on the management of habitats rather than specific species when not addressng commodity species. Therefore, it is more appropriate to focus on species groupings as defined ecologically when assessing potential effects of proposed actions.

Different schemes for grouping species have been offered in recent years. Housley (1994: 561) has divided the Fort Rock Basin into four general biotic communities (dry/lowland, wet/lowland, general upland, and lithosol upland) and nine specific plant communities. As with individual species, these general biotic communities are dynamic in nature. For example, a small addition of moisture could change palustrine marshes crowded with cattails and bulrushes to lacustrine marshes with large areas of open water, or change sedge meadows to palustrine marshes. Dry playas can similarly change to marsh areas supporting cattail, tule and rushes. Marsh plants can tolerate drying out, but extended periods of flood water would deplete roots of needed oxygen and rising water eliminate some species.

Recently, Fowler (1992: 43) has provided another classification of the Great Basin landscapes from a subsistence perspective. Three major environmental zones are identified: marsh/wetlands; desert lowlands; and, mountain uplands. The wetlands are the most important and consistent source of food resources. Observations indicate that "species diversity...is at its highest and the marsh at its richest when water is neither too deep nor too shallow" (Fowler 1992: 44).

For the central Columbia Basin, Uebelacker (1984: 151) also highlighted the significance of wet meadows for certain root plants, which principly occur on all landforms associated with seeps and springs in lowlands and small forest openings in upland areas. He also identifies "riparian ribbons" as critical habitat for game, fish, and waterfowl in addition to culturally important plants. As noted above in Section III, certain habitat types, such as lithosols and riparian settings, contain multiple culturally important species.

For the ICBEMP project, the following 15 categories represent an ethnobotanically-based perspective for establishing links between species and habitats.

Cultural plant ecological groupings

1. *Lithosols (low sage: *Artemisia arbuscula, A. rigida*)
2. Shadscale community (saltbush: *Atriplex* spp.)
3. Greasewood/shadscale (*Sarcobatus vermiculatus*)
4. Salt flats/playas (*Distichlis* sp.)
5. Sand dunes

6. *Wet meadows (sedge)
7. Dry meadows (grass)
8. *Riparian areas
9. *Marsh/ponds
   a. palustrine
   b. lacustrine
10. Vernal pools
11. Colluvium, alluvium, talus slopes
12. Woodlands
   a. Juniper
      1. juniper/bitterbrush
      2. juniper/sagebrush
      3. juniper/manzanita
      4. juniper/aspen
      5. juniper/grass
   b. ponderosa pine
   c. other pine forests
   d. spruce/fir
   e. mountain meadows
13. Sagebrush/bunchgrass
14. Distributed areas (road sides, flooded areas)
15. Sagebrush/mountain mahogany

Tribal variation in regard to the exact nature of such interests is significant given the broad geographic scale of the Interior Columbia project area, varying between anadromous and resident fisheries emphasis and distributional characteristics of some plants and animals. Such variation commonly occurs gradually from north to south and east to west. Other variables needed for performing the assessment include vegetative cover types and their prevalence, soil type occurrence, estimated anadromous and resident fish populations, and estimated game populations. Information associated with this index is largely gained through meetings with tribal officials and members, and from the ethnobotanical, biological, anthropological and ethnohistorical published literature. The integrity of information for the northern intermontane is reasonably accurate with consistency among the different information sources.

(2) place integrity

This index is designed to assess effects posed by scenarios and alternatives on tribal interests concerning interest areas, landscape features and individual localities, including traditional use sites, burials, and archaeological sites. As discussed in the previous sections, Indian peoples have a pronounced special attachment to the land which is imbedded in spiritual beliefs, including annual nature renewal cycles. Values involve pursuit of traditional uses of the land associated with harvest of native species and performing sacred ceremonies and other related

practices. Such uses are addressed by the U.S. Constitution, treaties, and statutory law, and legal case history. Intrusions introduced into culturally important places can substantially compromise the effective performance of related practices or dilute the qualities forming the basis for attachment.

The landscape may be generally considered in broad categories of geomorphic features (i.e., valley basins, ridge, canyon-plateau, upland) with each type associated with a unique combination of values. The degree of intrusion will be ordinally measured through judgemental assessment ("+" for improved, "0" for relatively unchanged, "-" for decreased integrity of settings). The evaluation can be conducted and displayed on the subbasin scale.

Some general consistency exists within the Interior Columbia project area regarding the importance and meanings of place. But the degree and nature of variation cannot be assessed in detail because much of the value of "places" is spiritual, a high degree of sensitivity is attached to them, and relevant information is not freely shared, even within tribal communities. The confidence level for assessment is consequently quite large. The basic form of information needed for assessment is a geographic display of geomorphic landscape features. Because of the subject's sensitivity, only limited sources of information are available, such as within the anthropological and ethnohistoric literature. Some of the useful and relevant literature has fortunately been published by tribal sources.

Archaeological sites are commonly pre-contact camps and villages, important places to Indian peoples still today by providing an ancestral link. Agencies are compelled to protect and actively manage archaeological resources located on public lands in consultation with Indian tribes through the National Historic Preservation Act and the Archaeological Resources Protection Act. Human burials and certain cultural items are no longer considered archaeological by statute as addressed by the Native American Graves Protection and Repatriation Act.

This variable in regard to localities can be portrayed as number of sites potentially affected. The larger the number, the greater the negative affect of the particular management strategy. For purposes of this project, operating on a more general level, the degree of impact posed can be ordinally measured through judgemental ("+" for minimal impacts, "0" for relatively unchanged, "-" for increased rate of disturbance). The evaluation can be conducted and displayed on the subbasin scale.

The character of the archaeological record varies regionally, particularly between the Columbia Plateau/Klamath areas and the Northern Great Basin/Upper Snake River regions. The type of data needed to construct this variable include geomorphic landscape features, soil type occurrence, fisheries distributions and vegetative cover types distribution. All of these sources which act as indicators of traditional land use patterning. A large body of information is available in published and unpublished literature regarding the nature of the archaeological record, however the various subregions have not been comparatively addressed.

(3) tribal community well-being

A primary goal of tribes is represented by the quality of life desired and includes the land and resource base necessary to sustain the tribes spiritually and economically. This index is designed to assess the effect posed by scenarios and alternatives on tribal interests concerning maintenance of community (also including individual) well-being. Indian communities have well established traditions of maintaining close-knit communities through recognition of extensive kinship roles and use of communally controlled lands and resources. Importantly from a public land management perspective, this tradition is largely inbedded in the traditional use of the land (both resources and landforms). Community health or well-being is based on numerous factors, including economic growth, freedom to pursue traditional uses of the land, effective trust relationship with federal government, and lack of infringements on religious practices. Integrity of sacred geography facilitates the projection of "images of social order and lend concreteness to the less visible systems of human relationships" (Walker 1991: 111). Shortfalls in any of these factors can lead to substantial effects on community well-being and may be reflected in a number of social measures (unemployment, subsistence abuse, suicide rate, etc.).

Potential effects on community viability are determined judgementally focusing on the character of a number of potential impediments to cultural and socio-economic community systems posed by differenct management actions. Well-being can be measured on an ordinal scale ("+" for improvement, "0" for no substantial change, "-" for substantial disruption). Evaluation can be conducted and displayed on the subbasin scale. Tribal variation will be considerable regarding demographic characteristics and dependence on public lands and resources. Not only is there variation in traditional economies, but economic growth initiatives are even more diverse. This variable has a low confidence level due to impreciseness of definition.

This variable is naturally not exclusive of the previous two discussed above, but is a culmination of many socio-economic and biological factors. Other data associated with biophyscial and economic scientific assessments are therefore of direct relevance to evaluation of this variable. A variable addressing economic growth of various industries in which some tribal communities are involved, including timber harvests, livestock grazing, recreation and tourism is basic to the understanding of tribal interests in the region. Some limited literature sources address current economic growth and modern initiatives among tribal communities. Extensive anthropological, ethnohistorical and ethnobotanical literature address traditional socio-economic characteristics of the various tribal communities.

Scenario Assessment

Late in 1994, three hypothetical land management scenarios were developed for trial assessment by the Interior Columbia Basin Ecosystem Management Project staff. These scenarios posed the basic of array preservation, commodity and ecosystem management strategies. Each are discussed below in regard to potential effects posed to tribal interests in the region.

Conservation Reserves Scenario

This strongly conservation-oriented stipulates scenario that public lands should provide the majority of society's non-consumptive needs. It is designed to preserve options for future generations who will eventually inherit the nation's public lands. Primary elements of the scenario include: (1) little or no direct manipulative management of plants and animals; (2) access to reserves primarily for purposes of research; (3) and adjustment of the agencies and relevant economic and social systems to new demands and options. Assumptions are that timber harvesting (including salvage), livestock grazing, hunting, mining, and collection of special forest products would be banned. Fishing would involve catch and release only. Local and temporary roads are closed and firefighting is applied only to protect private property, existing structures, or public safety. No special efforts would be applied to control exotic or introduced species. Ecological processes would essentially be allowed to occur without human intervention.

This conservation scenario poses marked negative effects on cultural plants important to treaty rights and tribal traditional economies. The scenario bans proactive land use strategies, such as rotational prescribed burning in forested settings essential for understory management. In addition, lack of intervention by humans in present ecological conditions could allow continued spread of exotic species significantly affecting native species important to traditional tribal economies. Access for research only precludes guaranteed access for exercise of treaty rights or traditional uses protected by regulatory mandates. Release fishing only restricts basic treaty rights and traditional uses of the resource. This scenario also restricts collection of special forest products which includes a number of culturally important species and also limits hunting and grazing, activities both reserved by treaty. The across-the-board ban of commercial uses could jeopardize economic growth of tribal communities and actually be contrary to federal trust responsibilities protecting tribal interests and well-being. Though new intrusions to important places and impacts to human burials and archaeological sites would be greatly reduced, trust responsibilities of agencies would be largely unfulfilled due to the restrictions on access and availability of traditional/treaty resources as described above. Consequently, government to government relations could be increasingly contentious and community well-being substantially decreased.

Consumptive Demands Scenario

This scenario would maximize commodity production from public lands, primarily providing economic development for local communities. The primary elements include: (1) emphasis on direct manipulative management of plants and animals; (2) opening areas for consumptive uses currently not accessible; (3) and, adjustment of agencies and local economic and social systems to new demands and options. Assumptions are that timber harvesting, livestock grazing, hunting, mining, special forest products collection, fishing, and recreational use are allowed where economically feasible. Special efforts would be taken to control exotic species and fire fighting used to protect resource values. No special protection of endangered species is included.

The Commodity Scenario continues trends toward the spread of non-native vegetative communities through increased disruption, thus increasing the spread of exotic species and further choking out native vegetative communities. Introduction of consumptive uses more extensively across the landscape would further impact the integrity of culturally important "places", thereby jeopardizing exercise of traditional uses of the landscape. Maintenance of traditional economies would thus be greatly effected. Potentially, major impacts on native fisheries will be cumulatively added to historic affects on fisheries, greatly limiting tribal ability to perform treaty protected activities. Continued road construction associated with timber harvest activities would potentially further erode water quality important to fisheries and decrease habitat for culturally important terrestrial plants. Human burial locations and archaeological sites will be increasingly threatened by ground disturbing activities. Trust responsibilities would likely not be well fulfilled and government to government relations would likely suffer. Community well-being would be compromised through decreased availability of traditional/treaty resources and access to traditional places.

Restore Ecosystems Functions Scenario

This scenario emphasizes restoration of natural ecosystems whose functions and processes have been altered. Such "restored" systems would be managed to maintain their functions and processes. Primary elements include: (1) manipulating management of plants and animals for purposes of restoring/maintaining ecosystem function; (2) emphasis on some areas to enhance understanding and demonstration of ecosystem function for research and education purposes; (3) and, adjusting agencies and local communities to the new demands and options available. Assumptions are that timber harvesting and salvaging are primarily focused on achieving certain stand condition goals, livestock grazing is used to manage fine fuels and control vegetation stocking and density, apply silvicultural treatments (precommercial and commercial thinning) to alter timber stand development, control mining activity, limited collection of special forest products and fishing, limited recreational use, selective road development and maintenance, and fire fighting resources primarily used to protect private property, existing structures, and public safety. Special efforts are taken to control exotic species and stream enhancement activities are emphasized.

The Ecosystem Functions Scenario allows understory management in forested vegetative communities, typical of management for native vegetation. In addition, this scenario allows for controlled collection of special forest products, noxious species treatments, and indirectly increased water quality and quantity. Intrusions into important traditional "places" and impacts on human burial locations and archaeological sites would be minimal. The native vegetation emphasis would enhance availability of traditional/treaty species and establish a sustainable basis for future harvests. Trust responsibilities will be most likely fulfilled by this scenario and government to government relations improved. Community well-being and personal health will be improved, unlike the other two scenarios.

A sample tabular display for tribal interests indicies is provided below:

Variable	Conservation	Commodity	Ecosystem Functions
species	-	-	+
place	+	-	+
community	-	-	+

As stated in the opening remarks of this report, more detailed assessments of the potential effects of Federal actions on tribal interests in the northern intermontane region should be developed as individual Forest and BLM plans are amended or begun anew. The greater role tribes have in the contribution of insights and direction to social and biological assessments, the more meaningful will be the efforts. In this manner, not only may tribal interests be addressed, but in ways more representative of tribal views. The role of socio-cultural factors in seeking solutions to complex resource management issues are being increasingly appreciated by Federal agencies in the 1990s. Awareness of the role of "sense of place" in understanding the expectations people have of the landscape and in the maintenance of community and individual self-identity is central to this appreciation. The feelings and ideas concerning place grow out of life's unique and shared experiences among different segments of United States and Indian society. A fundamental concern of tribes is that these factors be increasingly considered when public land use policies and strategies are formulated.

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Appendix A

Tribal Community Descriptions

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Burns Paiute Indian Colony

The Burns Paiute are descendants of Northern Paiute who had lived in the area of eastern Oregon (Whiting 1950; Stewart 1997). The traditional Paiute [illegible] the present area in [illegible] of the upper Deschutes, Umatilla, Walla Walla and John Day river drainages, and at least a portion of the Powder, Burnt, Malheur, Owyhee and Malheur drainages, and the entire Weiser and Payette drainages, not to mention the extensive [illegible] drainage region of southeast Oregon (Blyth 1912: 402; see also Fowler and Liljeblad 1986; Stewart 1939, 1973; Stewart and Wheeler-Voegelin 1974; Steward 1936, [illegible]). The Blue Mountains uplands were used extensively in addition to the lowland desert areas to the east (Whiting 1950: 17). To the east "the areas of Northern Paiute-Shoshone interpenetration were about coincident with the Oregon-Idaho boundary" (Steward and Wheeler-Voegelin 1974: [illegible]).

Cultural descriptions of the Northern Paiute lifestyle have been [illegible] (Stewart 1939; and Liljeblad 1986; Aikens and Couture 1984). In brief, the Paiute traditionally [illegible] semi-nomadic, largely economically self-sufficient and politically independent [illegible]

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Appendix A

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Burns Paiute Indian Colony

The Burns Paiute are descendents of Northern Paiute whose homeland includes most of eastern Oregon (Whiting 1950; Soucie 1991). The traditional Paiute Subsistence Region within the project area includes to much of the upper Deschutes, Umatilla, Walla Walla, and John Day river drainages, and at least a portion of the Powder, Burnt, Silvies, Owyhee, and Malheur rivers, and the entire Weiser and Payette drainages, not to mention the expansive semi-arid interior drainage region of southeast Oregon (Blyth 1938: 402; see also Fowler and Liljeblad 1986; Steward 1938, 1970; Steward and Wheeler-Voegelin 1974; Stewart 1938, 1939). The Blue Mountain uplands were used extensively in addition to the lowland desert areas to the south (Whiting 1950: 17). To the east "the zone of Northern Paiute-Shoshoni interpenetration would about coincide with the Oregon-Idaho boundary" (Steward and Wheeler Voegelin 1974: 9).

Concise descriptions of the Northern Paiute lifestyle have been recently provided (Fowler and Liljeblad 1986; Aikens and Couture 1991). In brief, the Paiute traditionally consisted of semi-nomadic, largely economically self-sufficient and politically independent families who

seasonally occupied "home" tracts. Precise subsistence and settlement behavior varied in the vast region of the Northern Paiute territory, which is environmentally diverse, providing some families access to richer or more specialized localities than others (Fowler 1986b; Couture et. al 1986; Greenspan 1990). The families would tend to unite semi-annually with other families forming a camp group of 2 or 3 families. The core family unit would continually expand or contract and the camp group also changed size and composition seasonally and through the years, often foraging together and pooling resources.

Several economically important "sub-areas" in Northern Paiute territory in southeast Oregon are described (Blyth 1938: 403; Whiting 1950: 18; Fowler and Liljeblad 1986: 438; Greenspan 1990). These include freshwater marsh areas (Malheur Basin and possibly Silver Lake and Warner Valley), drainage systems of the Columbia and Snake rivers, and the remainder of the cold desert region offering few resources for economic specialization. Subsistence activities included primarily hunting, fishing and gathering. Marshes offered stands of tule and cattails and abundant waterfowl; the rivers provided anadromous fish and greater abundance of large game, roots and bulbs. Other resources available included numerous seed, root and berry plant species and a wide range of small game and insects. The availability of root crops in southeast Oregon led to a Paiute root collecting complex like that of the Columbia Plateau, including use of roasting pits. The quality of fisheries in the lake bodies varied greatly among hydrologic basins depending on a variety of factors. Several areas in southeastern Oregon may have been "peripheral or marginal," offering scant resources (Steward and Wheeler-Voegelin 1974: 2).

In sum, the Paiute of southeast Oregon in the ethnographic period was a linguistically homogeneous population of economic and politically independent families who foraged broadly in an arid environment, habitually sharing local resources and routinely traveling in overlapping territories.

Two bands of Northern Paiute in Oregon signed treaties with the United States. The Walpapis Northern Paiute band occupied 7,000 square miles in the Crooked River valley and headwaters of the John Day River. They signed the Walpapis Treaty of 1865 (Kappler 1904: 876) which led to their removal to the Klamath Reservation where they briefly stayed before filtering back to southeastern Oregon to participate in the Snake War of 1866-68 (Royce 1899: 836). The other treaty band, Yahooskin, are signatories to the 1864 Klamath Treaty (see The Klamath Tribes section).

At the conclusion of the Snake War, a treaty was negotiated at Fort Harney with three Northern Paiute bands but never ratified. A subsequent executive order in 1872 established the Malheur Reservation in southeast Oregon where the Walpapis were joined with other free-roaming Paiutes of southeast Oregon (Royce 1899: 858; Meacham et. al 1974). The Malheur Reservation went through numerous geographic changes over a brief few years (McKinney 1983: 57). Initially the United States temporarily withdrew much of southeast Oregon from settlement by executive order on March 14, 1871. The actual reserve was then established by executive order on September 12, 1872 which was then changed in 1875, 1876 and 1878. In 1875 the Malheur Reservation was increased to 1.8 million acres but was largely abandoned by Northern

Paiute in 1878 during the Snake War. As a result, the reservation was terminated by executive orders in 1882-3 and 1889 (Royce 1899: 910). Following the 1868 Bannock and Paiute War, a number of Northern Paiute bands were also rounded up and force marched to the Yakama Reservation where they were detained until 1883.

In 1897 homeless Northern Paiutes who had gathered in the Burns, Oregon area were provided 115 allotments in the area, and a reservation was established by an act of Congress (P.L. 92-488) in 1972 consisting of a 760 acre parcel purchased in 1935 northwest of Burns and 10-acre Old Camp on the west side of Burns. The Burns Paiute Indian Community gained Federal recognition in 1968. By the early 1990s, the land base amounted to over 11,000 acres on the remaining 71 scattered allotments (Ruby and Brown 1992: 9). As of 1995, the Burns Paiute had an enrollment of 274 persons and reservation size of 11,786 acres. The tribe operates a 110 acre farm which generates some income (Ruby and Brown 1992: 159). They are currently are exploring several economic development avenues.

Indians of the Coeur d'Alene Reservation

Coeur d'Alene is a French-Canadian name given to the Salish-speaking Skitswish peoples in the early nineteenth century. The Coeur d'Alenes used a four million acre ruggedly mountainous territory generally bordered by Clark Fork River on the east in Montana, Clearwater River territories to the south, Spokane Falls to the west, and Lake Pend Orielle to the north (Teit 1930: 37; Walker 1978: 63). First non-Indian settlement was by Jesuit missionaries in 1842, but not much pressure from settlement developed before 1877 despite gold finds in Oro Fino Creek in 1860 (Bischoff 1974: 208). By 1883 large numbers of placer miners began arriving in the North Fork of Coeur d'Alene River, followed very soon by a large surge of silver-lead deposit finds in the South Fork. Up to 5,000 miners were working Pritchard Creek in 1884.

Anadromous fish were most intensively harvested from the North Fork Clearwater River and at Spokane and Kettle falls. Root harvests were made in three major locations: DeSmet, Clarkia and Moscow, Idaho (Walker 1978: 65). Camas was especially abundant in Coeur d'Alene country and gathered for commerce. Summer camas camps were primarily located away from settlements to the southwest, near Tensed, Washington and Tekoa, Idaho. Berries, usually abundant in Coeur d'Alene country, were gathered along creek and river beds near settlements (Teit 1930: 88). The Coeur d'Alene country was also historically abundant in elk, with some goats and moose as well. Good pastureland was limited, except for small prairies along the South Fork of Coeur d'Alene River and the St. Joseph River, thus causing some shift in settlement patterns with the adoption of the horse in the 1700s (Chalfant 1974c: 191). Another important subsistence (economic) area was the piedmont region of low mountains and hills south of the modern town of Spokane, heavily forested and interlaced by streams and lakes and abounding in game and cultural plants (Teit 1930: 96). A similar important area is between Liberty Lake and Desmet, Idaho. The higher mountain settings, such as east of Cataldo, were of secondary economic importance.

Coeur d'Alene settlements were originally located primarily on or near Coeur d'Alene

Lake and the principal rivers feeding it, such as the Coeur d' Alene and St. Joseph. The primary settlement historically was located at Cataldo, Idaho, the upper most settlement on Coeur d' Alene River (Teit 1930: 38; Ray 1936: 130). Closest relations in general were with the Spokanes, sharing similar environments and subsistence areas and having substantial intermarriage (Teit 1930: 40). The Coeur d'Alene were also quite culturally similar to the Sahaptin Nez Perce and shared a "considerable strip of neutral land" (Spinden 1908: 173; Teit 1930: 37). Fishing, gathering and gaming places were commonly shared with others, such as the Nez Perce and Spokanes.

The Coeur d'Alenes suffered substantial population losses to smallpox around 1831 and 1850 (Teit 1930: 40). Like other northern interior Columbia tribes, a planned 1855 treaty council with the Stevens treaty expedition was cut short by hostilities in Yakama country (Richards 1993: 252). In 1867, a reservation was established for the combined Kalispel, Spokane, Sanpoil, Colville and Coeur d'Alene tribes, but Coeur d'Alenes never removed to that location (Royce 1899: 846). In 1873 an agreement was negotiated for cessation of lands and creation of a reservation, but it was not approved by Congress. Finally, a reservation was established by executive order November 11, 1873 which included the 1867 reserve plus additional lands (Royce 1899: 869; Dozier 1962). Acceptance of the reserve by the Coeur d'Alene at that time was interpreted by the United States as cessation of territory. The reservation was originally 600,000 acre in size but has been reduced now to approximately 69,000 acres. Almost 2.4 million acres were ceded by the agreement (Controneo and Dozier 1974). The Coeur d'Alenes were joined in 1887 by some Spokanes who had been living near Spokane Falls.

As of 1995, there were 1,290 enrolled members with over 800 on the Coeur d'Alene Reservation. The Coeur d'Alenes have received several settlement awards including a monetary settlement for 2.4 million acres ceded in 1887. Like many groups in the region, the economic base of the tribe changed dramatically within a brief 80 year period, from a traditional hunter-gatherer economy to mounted buffalo hunters, to farmers, to landowners leasing lands (Chalfant 1974c: 183). The tribe created the Development Enterprise in 1970 which established a farm in 1971 (Geoffroy 1977). The farm has grown to 5,700 acres by 1990, one of the largest farms in northern Idaho (Johnson 1990: 15). The tribe also has timber operations supplying employment and profit. A Tribal Development Corporation was created in 1983. The tribe has a modern medical facility, a $3 million tribal school, and plans to construct a resort (Ruby and Brown 1992: 35). The tribe is now seeking to establish a fish hatchery on Coeur d'Alene Lake and gain ownership of National Forest lands within their reservation (the latter typical of many of the tribes in the Northwest).

Confederated Tribes of the Colville Reservation

The Confederated Tribes are comprised of people attributed to as many as twelve "distinct" historic groups (Wenatchee, Chelan, Entiat, Methow, Okanogan, Nespelem, Sanpoil, Lakes, Colville, Moses Columbia, Palus, and Chief Joseph Band of the Nez Perce). All of the Colville "tribes" have been described by Ray (1975: 7) as "autonomous ethnic and political units

of the Plateau Culture Area" and all traditionally lived in the central area of the Plateau, with the primary exception being the Wallowa Nez Perce band. No treaties were developed with many of the northern interior Columbia basin groups, including Methow, Okanogan, Kutenai, Pend d'Oreille, Colville, Spokane and other Salish groups in central Washington. The United States simply took possession and later established reservations by executive order. The Colville Reservation was established by executive order in 1872 for all non-treaty peoples of northeastern Washington (Royce 1899: 856). It was initially created in the fertile Colville Valley east of the Columbia River, but later that same year, under pressure of non-Indians in the region, it was moved west of the river onto more arid lands (Royce 1899: 858). A number of peoples from across northern Washington and Idaho originally moved onto the reservation (Ray 1932; Ross 1968). In this manner the Colville Reservation is exemplary of the fluidness of population movement prior to invasion still evident today. The reservation originally consisted of Sanpoil-Nespelem, Sinkaietks (Southern Okanagan), and Colville bands, but later added Chief Moses' Columbia Salish (Wenatchees, Senijextees, Sinkiuses, Entiats, and Methows) and Chief Joseph's Nez Perce and Palus followers, both treaty-signing bands (Hunn 1990: 269). Palus themselves are scattered on Colville, Yakama and Nez Perce reservations (Hunn 1990: 271).

As in most other cases of confederated tribes situations, there has been considerable assimilation of the various tribes on the reservation, thereby losing their historic distinctiveness. Tribal membership in 1995 was 7,992. The Confederated Tribes experienced the usual history of steady reduction of the initial reservation through the allotment era at the beginning of the 20th century. Further information concerning each of the historic groups is provided below, described in order from near the Canadian border downstream on the Columbia River to the Snake River country and beyond.

On the furthest upstream extent of the Columbia River nearest the Canadian border lived the Colvilles and Senijextee (Ray 1936: 120). The Colvilles originally lived at Kettle Falls on the Columbia River, south along the river to Hunters, Washington, and eastward a short distance in the Colville River valley (Ray 1932: 14). It is estimated that up to 3,000 salmon were netted daily at Kettle Falls. Like Celilo Falls, Kettle Falls served as a major fishery and a trading center. The Senijextee lived along the Columbia River from Kettle Falls north into Canada and along the lower Kettle River.

The Colville Reservation as it exists today was created on the homelands of the Nespelem and Sanpoil. The Nespelems lived primarily along the Nespelem River and the Columbia River to the mouth of the Okanogan River (Ray 1932: 15; 1936: 137). The Sanpoils lived along the Sanpoils River and fished at the mouth of the Sanpoils and Spokane rivers and at Kettle Falls (Ray 1932: 23; 1936: 139). Mouth of the Sanpoil River was a major fishery attracting Coeur d'Alene, Yakama, Umatilla, Okanogan and Colville groups (Ray 1936: 138). The Sanpoil used root grounds south of the Columbia through Grand Coulee country as far southwest as Soap Lake and Ephrata and as far east as Davenport (Ray 1932: 27). Nespelem and Sanpoil hunted east of the Columbia at Huckleberry Mountain. They both remained aloof from government contact, and refusing assistance, but ultimately residing on the reservation created around them.

Obviously, owing to the 19th century non-Indian impulse to "lump" independent traditional Indian communities into larger supposed political or ethnic entities, considerable confusion exists, particularly in the literature concerning the nature of Salish groupings often labelled Wenatchee, Entiat, Chelan and Methow, with homelands all along the west side of the Columbia River from the Yakama homeland upstream to the Okanogan River (Chalfant 1974d: 333). Each were culturally-related but have geographically distinct settlements with individual steep drainages. They are considered distinct from other Salish groups across the Columbia to the east though sharing common cultures. These groupings had settlements at Lake Chelan outlet, Entiat Creek, on the Columbia between Entiat Creek and the Wenatchee River, mouth of the Wenatchee River, upstream on the Wenatchee, at the forks of the Wenatchee at Leavenworth, Washington and on Columbia several miles below the mouth of the Wenatchee (Chalfant 1974d: 323).

The Okanogan (or Sinkaietks), perhaps maintained the largest degree of distinctiveness (Ray 1936: 122; 1974b: 391). With their homeland naturally focused along the Okanogan River from its mouth at the Columbia River upstream, they also made use of resources south of the Columbia in the Waterville area (Ray 1936: 410; Cline et. al 1938). Apparently not pleased with the creation of the Chief Moses (Columbia) Reservation on their homelands, they remained on their homelands after termination of the reservation until finally joining the nearby Colville Reservation (Ruby and Brown 1992: 202).

The Methows also kept a relatively large degree of separateness from other Salish groups downstream (Ray 1936: 141). The Methows lived primarily on the Methow River of northeast Washington just downstream from the Okanogan River with primary fisheries on the Columbia River at the mouth of the Methow. Some Methow moved onto the Colville Reservation, others remained in Methow Valley (Ruby and Brown 1992: 129).

The Chelan originally resided at the southern end of Lake Chelan (Ray 1936: 141). Because of the significant drop in elevation from Lake Chelan to the Columbia River, salmon fishing focused on the Wenatchee River. People from the area attended the Yakama treaty council in 1855 but were not signatories (Chalfant 1974d: 351). Under terms of the Chief Moses Agreement of 1883, some Chelans received allotments in the their own territory and southern portion of the short-lived central Washington Moses Reservation; others moved to the Colville Reservation (Royce 1899: 910; Kappler 1904: 1040).

The Entiat peoples originally lived mainly along the Entiat River, situated between the Wenatchee River and Lake Chelan (Ray 1936: 141). The Entiats were signatory to the 1855 Yakama Treaty. Some Entiats subsequently took allotments on Lake Chelan, while others moved to the Colville Reservation (Ruby and Brown 1992: 75).

The Wenatchee country was a poplar trade center for many. Considerable trade and communication occurred with the several west bank Salish groups, with peoples west of the Cascades, and others up and down the Columbia River. Typically shared were fisheries, root grounds, small game, waterfowl hunting, trading, gambling, horse racing and summer ceremonies.

People from the area traditionally travelled as far south as The Dalles and west to Puget Sound for trade, often serving as merchants, reselling items gained in trade at The Dalles to Sanpoil and Okanogan peoples (Chalfant 1974d: 365). The Leavenworth locality served as a key fishery at the mouth of Icicle Creek used by many (Ray 1936: 142). Those Salish groups south of the Wenatchee Mountains, such as the Wenatchees in the Ellensberg area, had naturally forged closer ties with the Yakama and Kittitas and had become signers of the Yakama Treaty along with the Leavenworth area group.

Though the first direct contact between these west bank Salish and non-Indians occurred by 1811 with the David Thompson and Alexander Ross fur trapping parties, there is a remarkable lack of information about these groups for the next 30 years (Chalfant 1974d: 342). The fur traders and explorers apparently paid little attention to this area as exemplified by the lack of trading posts established between Fort Okanogan and the Walla Walla River. The few recorded observations consistently remark about the relatively poor resource conditions along this stretch of the Columbia. Similarly, there is little information concerning relocation of these groups to reservations though most refused removal to the Yakama Reservation because of its location outside their homeland and residence of different linguistic groups. This area is described as the last in central Washington to be affected by non-Indian settlement; not until the 1890s were there very many non-Indian settlers (Ray 1974b: 379). Most early intrusions therefore derived from military and other government activities, rather than settlement. Most Wenatchee took allotments in their homeland, though some moved to the Colville Reservation. By late 1800s, the Entiat, Chelan and Methow formed a political alliance (Chalfant 1974d: 368).

The Sinkiuses (also called the Columbia) had a relatively large homeland centered on the east bank of the Columbia River in the Rock Island area near Wenatchee. Their subsistence range extended across the semi-arid plateau country east of the river within the great bend of the Columbia River, approximately west of Moses Lake, north of Vantage and south of Badger Mountain (Ray 1936: 143; Relander 1986: 33). Much of this region east of the Columbia and north of Snake River is little known in historical written records but frequently considered resource poor, including the paucity of wood and water to support settlements, when compared to surrounding regions. Though the mid-Columbia region is well known for the large stream courses, historically supporting large anadromous fish runs, the great rivers primarily draw their waters from sources outside the subregion. Therefore, most streams in this central basin region are small and some intermittent. The area did support herds of antelope that attracted hunters from around northeast Washington. Consequently, the region was primarily used by groups living on its periphery: Okanogan, Sanpoil, Nespelem, Colville and Spokane from the north; Wanapum and possibly Palus from the south. The Columbia people became more equestrian than others in the area, joining buffalo hunts to the east. Several settlements were located on the east bank of the river, from the rapids near the mouth of Crab Creek to a short distance above the Wenatchee River. Similarly, fishing stations occurred at Rock Island Rapids (present location of Rock Island Dam), Cabinet Rapids and Gualquil Rapids above Vantage, downstream to Priest Rapids and upstream to above the Wenatchee River (Chalfant 1974f: 290). Other resource use areas included Saddle Mountains south of Crab Creek, Moses Lake vicinity, Ephrata-Soap Lake area, and the entire Grand Coulee area west to Waterville.

None of the eastside Columbia bands signed the Yakama Treaty, though the treaty served to cede their lands. A charismatic leader in the latter 1800s, Chief Moses assumed leadership of the nontreaty peoples of the mid-Columbia, beginning with the Rock Island Rapids settlement opposite the mouth of Moses Coulee and near the mouth of the Wenatchee (Relander 1986: 32; Chalfant 1974f: 242). Moses attracted many "disaffected" groups from the region resulting from epidemics, war and dislocation. Called the Columbia Confederacy, the union included the Sinkiuse, Chelan, Entiat, Methow and Wenatchi groups (Ray 1951; Ruby and Brown 1965). Under the leadership of Moses, the peoples avoided war with the U.S. during the Yakima War of 1855.

In 1879 the Columbia (Moses) Reservation was established by executive order adjacent to the 1872 Colville Reservation for the Sinkiuses, Columbias, Chelans, Entiats and Wenatchees (Royce 1899: 898). The reservation extended from the Okanogan and Columbia rivers west to the crest of the Cascades and north from Lake Chelan to the Canadian border, including the Methow, Chelan and Okanogan homelands (Ray 1974b: 403). Some Entiat moved to the reservation, but Columbia and Wenatchee peoples chose to remain in their homelands. As a consequence, those who did move to the reservation were forced to relocate again to the Colville Reservation under an 1883 agreement (Kappler 1904: 1073) restoring the reservation to public domain, later formalized by an 1886 executive order (Royce 1899: 920). By 1884, most Columbia Salish relocated to the Colville Reservation, with some moving to the Yakama (Ray 1974b: 405). Those groups residing on the eastbank from north of Crab Creek north to Rock Island Rapids moved to the Colville Reservation, with Moses settling near Nespelem. The 1883 agreement also encouraged Chelan, Entiat and Wenatchee to take one square mile homesteads for the various Salish peoples in the area. This form of settlement preceded the 1884 Indian Homestead Act which allowed for the same on a broader basis. However, the Chelan not only refused relocation to a reservation, but also would not permit their lands to be surveyed for homestead purposes. They were subsequently forcibly relocated to the Colville Reservation allowing some Entiats to take homesteads in vacated Chelan territory.

The Palus are Sahaptin-speakers whose homeland was the lower Snake River from just above the mouth of the Palouse River to the Columbia River and up the Palouse drainage at least as far as Colfax, Washington (Ray et. al 1938: 388). The principal settlement was located at the mouth of the Palouse River with no substantial settlements located further up the Palouse, apparently due to the occurrence of a falls which posed an obstacle to anadromous fish just a few miles upstream from the mouth. The western-most settlement was a well-used fishing site at the mouth of the Snake River, and has at times been attributed to Wanapums though it was perhaps shared by several groups. The upper Palouse River country where they apparently gained much of their subsistence was shared with Coeur d'Alenes and Nez Perce. Their subsistence area extended eastward to the camas fields near Desmet and Moscow, Idaho.

The Palus have been considered by some as Sahaptin "newcomers" to the lower Snake River region, possibly splitting from the main body of Yakama and moving further east, not long before arrival of Lewis and Clark (Teit 1930; Trafzer and Scheurman 1986). These peoples were commonly considered Nez Perce peoples by early non-Indians in the area, but were actually more

closely associated with the Yakama. In fact, at least one group of Palus were signatories to Yakama Treaty of 1855. The Palus lived at the center of the Nez Perce, Yakama, and Umatilla triangle, however many refused removal to any of those respective reservations. Some Palus fought along with Young Chief Joseph in 1877 and thus ended up at the Colville Reservation in 1886. The Palus have now lost whatever distinctive identity they may have had through life on several reservations, all located a distance from the homeland.

The Joseph Band is also known as the Wallowa-Imnaha Band of Nez Perce (Ray 1975: 11). Like the Palus, they are a Sahaptian-speaking group in contrast to the numerous Salish-speaking Colville Reservation tribes. With a traditional homeland in present-day northeastern Oregon, the band apparently always maintained a large degree of independence from other Nez Perce bands, even prior to the 19th century (Ray 1975: 12). It continued to be the group of Nez Perce most isolated from non-Indian travel and settlement. The Wallowa band had rich economic lands for grazing, hunting and gathering. Winter settlements focused in the lower valleys of Wallowa, Imnaha and Grande Ronde rivers. Wallowa Lake served as a rendezvous location for the Wallapum, Cayuse, Umatilla and Nez Perce with summer settlements near Joseph and Enterprise, Oregon (Suphan 1974a: 113). A key fishery was at the confluence of the Wenaha and Grande Ronde rivers. Plant gathering occurred northward to the Tucannon River drainage. Their southern extent of territory was Seven Devils Mountains, beyond which Shoshonean groups lived (Chalfant 1974a: 108).

After being signatories to the 1855 Nez Perce Treaty, they refused to take part in the 1863 treaty council. The initial treaty created a reservation consisting of much of the Nez Perce territory including most of the Wallowa-Imnaha band's. Failure of the U.S. to protect Nez Perce lands led to the later treaty which relinquished 90% of the land reserved earlier, including the entire area of the Joseph Band. The band refused to relocate to the newly reduced reservation located outside their homeland. Subsequently, the Wallowa Reservation was established by Executive Order in 1873 in the lower Imnaha-Grande Ronde river valleys, including a little more than half of their traditional territory, but excluding the summer lands (Royce 1899: 864). The Wallowa Reservation was revoked in 1875 (Royce 1899: 882). Continued refusal to relocate to Lapwai led to conflict in 1877. Following the 1877 flight from U.S. military forces, surviving peoples were transported to Oklahoma. Many returned to the Northwest in 1885, primarily to the Colville Reservation with some to the Nez Perce Reservation. The band still suffers from loss of homelands and less than full integration with groups of unrelated language at Colville.

The vast majority of land on the Colville Reservation is in forest (Rellergert-Taylor and O'Dea 1988). In the 1930s the Colvilles, like many tribes in the region, were still governed by informal councils of leading men and chiefs with nearly a cashless economy based on fishing, hunting, gathering plants, and trading. However, the Colville lost their salmon and 80,000 acres of their land to construction of the Grand Coulee Dam. The Colvilles established a Business Council in 1938. The tribes did receive some monetary settlement for loss of fisheries at a later date.

The Colville Tribal Enterprises Corp. today includes logging, wood products mills, bingo,

a casino, three grocery stores, and a fleet of houseboats. The tribe has 800,000 acres of commercial timberland which is the largest supply of wood in the area. Timber harvest revenue in 1981 was near $18 million and employed almost 500 tribal members. Grazing revenue involving almost 1 million acres slightly exceeded $100,000 (Meyer 1983: 17). Typically, alienation of agriculturally productive land during the allotment period keeps agricultural activity at a low level. Major mining activity involving copper and molybdenum has been proposed with 1980s projections of almost $9 million annually. Fisheries constituted a primary commercial activity until construction of Grand Coulee and Chief Joseph dams. An annual economic loss of $11.3 million has been estimated for the lost fisheries over a decade ago (Meyer 1983: 19). Failed enterprise attempts have included a molybdenum mine, log cabin fabrication, meatpacking plant and modern greenhouse operation (Ruby and Brown 1992: 45). The tribe has already begun to buy back 200,000 acres of lost reservation lands. Future purchases of non-Indian parcels within the reservation is a key goal.

In 1994, the Confederated Tribes of Colville negotiated a large settlement of impacts on fisheries resulting from construction of the Grand Coulee Dam and to acquire a portion of power revenues. The $53 million initial payment and $15 million a year annuity beginning in 1996 will provide the tribes funding to pursue economic developments in the future. No other tribes receive revenues from a federal dam in the Columbia system, but the Flathead tribes of Montana and Warm Springs in Oregon get revenue from federally licensed private dams on their lands. The Colville will become the economic leader of Okanogan County. Other major awards resulted in 1965 for lands ceded in the Yakama Treaty of 1855 and in 1970 and 1982 for mismanagement of funds by the Federal government.

Fort Bidwell Paiute

The subsistence region and traditional economy of the Northern Paiute in eastern Oregon is described above in the Burns Paiute section. The Ft. Bidwell community is primarily composed of Northern Paiute whose homelands were primarily in the Surprise Valley and Warner Valley region of northern California and southern Oregon and adjacent area of Nevada westward to the northeast shore of Goose Lake (Kelly 1932: 70). Primary root gathering areas were reportedly to the east of Surprise Valley for spring and summer (Kelly 1932: 76). Warner Valley was described as "almost entirely tule swamps and lake country." Fishing was in early spring in creeks and streams (Kelly 1932: 76). In addition to Northern Paiute who settled in the McDermitt and Bidwell areas along the southern Oregon stateline following the 1868 Snake Wars, others joined the settlement after release from the Yakama Reservation in 1883. Over 3,300 acres of allotments were provided to the Northern Paiute who had settled at Fort Bidwell between 1897 and 1917 (Clemmer and Stewart 1986: 532).

Fort McDermitt Paiute

The Denio and McDermitt area was the southeastern most territory of Northern Paiute

(Blythe 1938: 404). In 1892 under the Homestead Act, allotments amounting to almost 35,000 acres on the the Oregon/Nevada stateline were granted to Shoshoni and Paiutes living around the fort after the facilities had been dissolved (Clemmer and Stewart 1986: 537). Currently, 35, 166 acres (18,830 in Oregon) of reservation lands are tribally owned, 116,192 are in tribal trust. Agricultural and meadow lands are located in river valleys.

Some 3,500 acres were irrigated in the 1980s and plans were made to develop water storage along the Quinn River in northern Nevada. Recently, the Fort McDermitt Paiute-Shoshone Tribe proposed to store nuclear waste on reservation lands. Planned is a 500 acre facility to store spent nuclear power plant fuel rods. This proposal has met strong opposition and has been currently tabled. Employment opportunities exist through tribal programs, projects and government activities. Specialized agricultural crops (including potato farms) provide some seasonal employment for a few tribal members. Other opportunities are seasonal, or limited to ranching and agricultural enterprises, some mining and employment in the county or town of McDermitt. Production of forage hay and pasture is a viable enterprise on the reservation, but water availability is sporadic except in above-normal water years.

Kalispel Indian Community

The term "Kalispel" derives from the name of a large camas prairie located west of the Pend Oreille River near Calispel Lake, Washington (Ray 1936: 121). The traditional territory extends eastward to present-day Paradise, Montana, northwestward across northeastern Washington to the mouth of the Salmo River in British Columbia, and extended some 200 miles along the Pend Oreille River (or known as Clark Fork in Montana) (Walker 1978: 55; Cote 1980: 3). Relatively little ethnohistorical literature is known for the Kalispel (Fahey 1986).

Two geographic subgroupings of Kalispel peoples have been distinguished. The Lower Kalispels resided from Pend Orielle Lake and Priest Lake downstream to the mouth of the Pend Orielle River. The subsistence region was focused on the Pend Oreille River valley of northeastern Washington with primary settlements at Usk and Cusick, Washington (Ray 1936: 128). The Upper Kalispels (also called Pend d'Orielles) lived primarily in Montana on Thompson and Flathead lakes, down the Flathead River to Lake Pend Orielle, on Horse Plains, and the Missoula area (Ray 1936: 129). They were signitories to the 1855 Hellgate Treaty (Ruby and Brown 1992: 86). The Upper Kalispel finally moved to the Flathead Reservation in western Montana in 1887 after reaching agreement with the United States, continuing traditional relations with the western Montana groups (Chalfant 1974g: 196). A key settlement of the Upper peoples was at the outlet of Pend Oreille Lake. The Upper and Lower Kalispel were not distinguished in Ray's (1936: 129) work.

The Pend d'Oreille River Valley, homeland of the Lower Kalispel, contained extensive camas fields, the most reliable economic staple. The Cusick camas fields attracted many Plateau groups. In addition the area offered abundant game, fish and plant foods. Salmon were lacking due to the obstacle posed by Kettle Falls; however, fishing (locally trout, whitefish, squawfish

and suckers) was the principal traditional subsistence activity during summer months and Kalispel travelled to Kettle Falls and the Spokane River for inter-tribal salmon fishing. Deer was one of the more important large game with occasional caribou, elk and important brown bear (Teit 1930: 308; Chalfant 1974g: 222). Like many groups, beaver became an economically important animal after contact. Spokanes and Colvilles made free use of Kalispel country.

Non-Indian settlement occurred early when David Thompson established the Kullyspell House trading post on the east side of Pend d'Oreille Lake (Chalfant 1974g: 178). However, non-Indian settlement did not greatly increase until the 1880s. The Yakama Indian War of 1855 hindered the Lower Kalispels, Spokanes, Coeur d'Alenes, and Colvilles from participating in treaty negotiations (Relander 1986: 184).

From 1887 to well after the turn of the century efforts were persistently made to relocate the Lower Kalispel to the Flathead Reservation as well. Some did go, but many of the Lower Kalispels were persistent in remaining in their homelands and not moving to the Flathead Reservation in western Montana (Cote 1980). Finally, a 4,620 acre reservation was established by executive order on the western shores of the Pend Oreille River in northeastern Washington in 1914 on previously allotted lands. The Kalispel were one of the last tribes in the U.S. to settle on a reserved land base. Thus the Kalispels remained one of the more independent, isolated and neglected of the intermontane groups in their relationship with the United States, with no formal relationship until 1914 (Cote 1980: 3). Shortly afterward, in 1924, the lands were alloted which served to break up the community lifestyle and dispersed tribal members to 40-acre parcels located mostly on dry hillsides and floodplains.

The land base of the Kalispel Indian Community does not include mineral wealth or commercial forests. Thus other avenues have had to be pursued. The tribe received a monetary award for over 2 million acres of land taken in northeastern Washington and the northern Idaho panhandle (Ruby and Brown 1992: 89). Part of the settlement monies were used to acquire the Kalispel Metal Products (KMT) enterprise, which originally produced a wide range of aluminum containers (Cote 1980: 32). Today, KMT has a broader based metal fabrication capability. The tribe today also raises buffalo for sale of meat, heads and hide, and operates a fish hatchery and an aqua farm for raising perch. Some land is leased to local ranchers. The tribe is a member of the Upper Columbia United Tribes and has established the Kalispel Indian Development Enterprise to guide economic development measures. In 1995 membership was 327.

The Klamath Tribes

In 1864 the Klamath Treaty was signed involving Klamath, Modoc, and Northern Paiute Yahooskins who cumulatively ceded over 20 million acres of south-central Oregon and northeast California (Royce 1899: 834; Kappler 1904: 865). A one million acre reservation was retained consisting primarily of forested uplands with the tribes having lost almost all of their lakes, meadows and wetlands to non-Indians for settlement. Both the Klamath and Modoc are related Sahaptian-speakers, but maintain their distinctiveness. Each of three groups will be discussed

separately.

The Klamaths' own traditional name is Maklaks, with Klamath being derived from a name applied to them by other Indians in the region (Spier 1930: 1). The Klamath traditional territory primarily lies east of the Cascades, from the headwaters of the Deschutes River in the southern area of the Columbia Basin southward to the upper reaches of the Klamath River. The traditional territory extends eastward at least to the Sycan Marsh area and headwaters of the Sprague River. On the west, Klamath territory extends northwest of Mount McLaughlin and southwest of Crater Lake. Major population concentrations of the Klamaths were traditionally at Klamath Lake and Klamath Marsh and along the Williamson and Sprague rivers with some settlements in the present-day Klamath Falls area (Spier 1930: 8; see also Barrett 1910 and Gatschet 1890). Direct contact with non-Indians began in the 1820s with fur trapping brigades (Spier 1930: 6). Unlike Modoc and many Paiute groups, relations with the United States through the 19th century was relatively amicable.

The Modoc are the southernmost of the Sahaptin-speaking peoples (Ray 1939: 1). Modocs lived immediately south of the Klamath along the Oregon-California borderlands, including the Lost River valley of Oregon (Spier 1930: 9; Ray 1963). The Modocs were reluctant signers of the 1864 Klamath Treaty and most refused to join Klamaths on the reservation, seeking their own reservation. Consequently, the Modocs and some Upper Klamaths and Yahooskins were located at Yainax, east of the Klamath Reservation. More recently some Modoc and Paiute are seeking separate formal recognition. Some Modocs were exiled to the Oklahoma Quapaw Agency following the 1872-73 Modoc War (Royce 1899: 878). In 1903 some Quapaw Modoc returned, taking allotments on the reservation in 1909, while others remained composing the Modoc Tribe of Oklahoma (Ruby and Brown 1992: 92).

The Yahooskin Northern Paiute's homeland centered on the 5,000 square mile area around Silver, Summer, and Abert lakes of south-central Oregon. Northern Paiute subsistence range and traditional economy is discussed in the Burns Paiute section.

The Federally recognized status of the tribe was terminated in 1961 along with the 861,000 acre reservation (Stern 1966). This action was imposed upon the tribes by the United States despite the Tribes' members voting in opposition to it. The Klamaths were harmed more from termination than any other tribe in the country. Termination has led to many problems for the tribes economic and social well-being (see also Economic section below). In 1977 tribal membership was 2,133. Treaty rights to hunt and fish were retained on the former reservation as reaffirmed by the *Kimball v. Callahan* decision. As of 1995, Klamath includes 2,914 persons and no reservation acreage.

Prior to termination, the Klamath Tribes lived largely from proceeds from timber sales from their reservation and from casual labor since before World War I (Stern 1966). Having exceptional ponderosa and sugar pine stands on their lands, commercial timber harvesting on the reservation began in 1910 at the time that the Southern Pacific Railroad connected the reservation to outside markets. By the late 1920s the Klamaths were considered one of the richest tribes in

the country. Because of this prosperity and perhaps perceived competition threat to non-Indian enterprises in the area, the Klamath were selected for termination by the U.S. government with the avowed expectation that they had achieved a necessary level of self-sufficiency. For the Klamath, with their loss of the reservation land base the tribal economy was destroyed. By 1989, unemployment soared to 46%, compared to an 8.5% statewide. Average life expecancy was 39 years. The Klamath Tribe was restored in 1988, but restoration did not include restoring reservation lands. The 2,800 member tribe created a fish and game commission and owns a fish hatchery. Major fish restoration efforts for the upper Klamath River drainage are now underway (Hill, Platts and Bienz 1994). The Klamaths now seek the return of more than 660,000 acres of their ancestral lands, which is all the federal land within the former reservation boundaries.

The Tribe has received several major settlement awards since 1938: for lost lands to military road use; for lands ceded in 1864; for boundary survey errors; in 1977 for mismanagement of tribal funds; for mismanagement of tribal forest resources; for mismanagement of grazing and agricultural lands and irrigation projects; and, for loss of lands during termination (Ruby and Brown 1992: 94).

Kootenai Tribe of Idaho

The Kootenai, a Kitunahan-speaking people, occupied a large area of upper Columbia Basin in northern Idaho, northwestern Montana and southeast British Columbia, a region particularly rich in fish, game and food plants (Johnson 1990: 16; Walker 1978: 37). The Kootenai were composed of two groups: upper and lower. Unlike the more Plains-like Upper Kootenai bands, the Lower bands relied predominantly on fisheries and other aquatic and terrestrial resources similar to other Columbia Basin groups. Two of three bands of Lower Kootenai now reside in Canada.

Some Lower Kootenai of northern Idaho, living in vicinity of the Canadian border near Bonner's Ferry and at Creston, British Columbia, did not move to the Flathead Reservation in Montana. A group of families near Bonner's Ferry were recognized by the Federal government in 1894. Primarily through the allotment process in the 1890s a small land base was established now amounting to approximately 1,300 acres. The traditional fishing, root gathering oriented economy became agricultural in early reservation days before fractionalization of allotments undercut the economic base. The tribe adopted a constitution in 1947. Some compensation was received from the Indian Claims Commission for loss of over 1 million acres of land without treaty or executive order. In 1995 tribal membership was 110. The size of the reservation population fluctuates as people move freely between Kutenai settlements in Idaho and British Columbia. Today the Kootenai Tribe operates the Kootenai River Inn which provides jobs and revenue to the tribe (Johnson 1990: 18).

Nez Perce Tribe

The Nez Perce (the aboriginal name is Nimipu) has traditionally used an extensive area of northeast Oregon, southeast Washington, and much of central Idaho (Spinden 1908: 173; Walker 1978: 71). The ethnohistorical literature addressing the relatively populous Nez Perce is extensive beginning with significant interaction with the Lewis and Clark exploration party (Josephy 1965; Haines 1955; Trafzer 1992). Yet the anthropological literature is not significantly greater than other interior Columbia groups (Spinden 1908; Marshall 1977; Walker 1985). The Nez Perce name was attached to other ethnic groups by some explorers and traders thus introducing some confusion in the literature (Ray et. al 1938: 390). Substantial economic commerce was established with other tribes along the Columbia River, western Montana and on the Plains. Though Ray has attributed true Plains-like tribal organization to the Nez Perce, Suphan (1974a: 107) denies such ever existed with the Nez Perce socio-political organization, thus not significantly differing from other interior Columbia basin populations.

The subsistence range of the Nez Perce includes some very fertile places and quality grazing lands. It generally extends from the Bitterroot Mountains forming the Idaho/Montana stateline westward, including all of the Clearwater drainage, the Wallowa mountain region, the lower Snake River, and the upper portion of the Salmon River drainage (lower Salmon River area and upper Weiser River), to the Tucannon River drainage and mouth of the Palouse River in Washington. The Blue Mountains and head of Bitterroot Valley served as a buffer to Shoshonean speakers to the south. Nez Perce settlements extended upstream on the Snake River as far as the Imnaha River and up the Salmon River to some ill-defined distance where Shoshonean territory began. The Tucannon drainage is shared with Cayuse, Wallapum, and Yakama. To the north, a large strip of land north of the Snake River was shared seasonally with other ethnic groups, especially Spokanes and Coeur d'Alenes. The northern extent of Nez Perce subsistence region has been described just south of Clarkia, Idaho (Spinden 1908: 173).

The base of economic operations were the established settlements distributed along the lower river courses of the Clearwater, Salmon, and Snake and their tributaries in Idaho, Oregon, and Washington (Spinden 1908: 175). "Sub-regions" of substantial settlement have been identified. Major settlement "groupings" include: on Snake River from Tucannon Creek to Clearwater River; on Snake River from Clearwater to Imnaha River (including Wallowa and Grande Ronde tributaries); Salmon River and tributaries (including Whitebird Band); and, Clearwater River drainage. The socio-economic base was greatly affected by a drastic population decline, especially after the passage of the Lewis and Clark party and before 1840s, primarily due to introduced diseases (Spinden 1908: 241).

Traditional subsistence is largely dependent on fishing (salmon, steelhead, trout, whitefish, lamprey, squawfish, suckers, sturgeon) and gathering certain edible roots (particularly camas), herbs, and vegetal stalks (Downing and Furniss 1968; Spinden 1908: 205). These foods were supplemented with large game (elk, deer, mountain sheep, buffalo, black and grizzly bear, and some moose) and numerous small game. With the acquisition of vast herds of horses after 1730, Nez Perce groups travelled across the Rockies to the Plains with other interior Columbia groups, such as the Flathead (Haines 1938). Large quantities of salmon were taken from the upper Clearwater and Snake rivers. Primary fisheries included: Little Salmon River south to Big

Payette Lake and tributaries; Clearwater River with major fisheries on Middle Fork and at the forks of Selway and Lochsa rivers; Rapid River and Boulder Creek; South Fork of the Salmon River and tributaries; and, the Snake River upstream to the Boise River (possibly as far as American Falls on the Snake River Plain (Chalfant 1974a: 107). Nez Perce travelled as far as The Dalles for fishing and trade, and even to Willamette Falls west of the Cascades in particularly bad years. Important camas fields include Weippe Prairie near Lapwai and Camas Prairie south of Lapwai, between Grangeville and Ferdinand, Idaho. Prairies near Moscow were used with Cayuse, Palus and Umatilla for camas gathering, trading, and other social activities. Camas, along with other roots, berries, fish and game, was also sought in the Grande Ronde Valley. Salmon River peoples traveled to New Meadows to gather camas on the Little Salmon River (Chalfant 1974a: 130). Some roots, such as kous, were gathered in dry, rocky soils along brows of steep hills. A wide range of berries occur along water courses, and huckleberries in highland settings, such as Craig Mountain and Huckleberry Butte south of St. Joseph River.

Trappers were living among the Nez Perce by 1811 (Walker 1985: 32); however, non-Indian settlement did not begin until establishment of the Lapwai Mission by the Spaldings in 1836-7 on the Clearwater River (Spinden 1908: 177). An original 7.7 million acre reservation established by treaty in 1855 was dramatically reduced to 780,000 acres south of the Clearwater River in 1863 and further reduced in subsequent actions to today's 90,000 acres (Royce 1899: 806, 826). The 1863 treaty further factionalized the Nez Perce population with southern groups not taking part or recognizing the treaty (Kappler 1904: 702, 843, 1024). A Wallowa Reservation was subsequently established in 1873, located between the Snake River, Grande Ronde River, and west fork of Wallowa, only to be eliminated in 1875, leading to the well-known Young Chief Joseph Band retreat in 1877. The band eventually established residence on the Colville Reservation. Other Nez Perce groups, adapted to the traditional Plains economy early in the 19th century, became signatories to the Blackfeet Treaty of eastern Montana in 1855 (Kappler 1904: 736).

A constitution was developed and approved by the BIA in 1927. The Business Council focused on "land leases, loan applications, land claims, timber sales, grazing permits, marriage laws, and sanitation" (Walker 1985: 124). Having declined the IRA process, the Nez Perce passed a more sweeping constitution in 1948 transferring many powers from general council of all Nez Perce to the Nez Perce Tribal Executive Committee.

The Nez Perce Tribe have at times leased approximately 80% of their lands to non-Indians. Tribal economy is largely based on funding from these leases and a timber program (Ruby and Brown 1992: 149). Through the Indian Claims Commission, the Idaho tribe received compensation (additional monies were awarded to the Joseph Band at Colville as well) for land cessations and for loss of the Celilo Falls fishery. Fragmentation of the Nez Perce land base has undercut a reliable revenue base; consequently, annual revenue has been highly variable between dryland agriculture, timber and pasture (Meyer 1983: 20). The Nez Perce have received approval in 1992 from the Northwest Power Planning Council for an ambitious $14 million Clearwater hatchery plan to restore chinook, steelhead and eventually other salmon, trout and sturgeon to the tribe's fishing sites scattered over 2 million acres of central Idaho. The project includes a central

hatchery and rearing facility, an auxiliary hatchery, and a number of satellite monitoring facilities. A goal is to mimic nature and return fish to traditional spawning grounds in the upper reaches of the Clearwater tributaries, strengthening natural fish runs. The project is awaiting funding from the Bonneville Power Administration. The long term goal is to restore salmon to 14 million acres of ceded lands in Oregon and Washington. In 1995 tribal membership was 3,170.

Northwest Band of Shoshone Indians

The subsistence range for some Northern Shoshoni peoples whose core homeland is in Utah included the southeast corner of Idaho (Ruby and Brown 1992: 199). Several bands signed the Box Elder Treaty of 1863 (Kappler 1904: 850) and by 1900 many resided on the Fort Hall Reservation. Others reside in Utah and Idaho communities. These peoples, including other Shoshoni from the Lemhi area of Idaho formed the Northwest Bands of Shoshoni Indians and received Federal recognition in 1980 (Ruby and Brown 1992: 195). An office outside of Utah has now been opened in Blackfoot, Idaho for the benefit of Lemhi descendents. In 1995 there were 411 enrolled members in Idaho and Utah.

Confederated Salish and Kootenai Tribes of the Flathead Reservation

The Confederated Tribes residing on the Flathead Reservation is comprised of descendents of several western tribes, including the Salish-speaking groups known as the Pend Orielle (also called Upper Kalispels) and Spokanes, and the Kootenai (Kitunahan linguistic family speakers) (Fuller 1974; Phillips 1974; Fahey 1974). In 1887 about 90 Upper Spokanes joined the reservation. As of 1995, tribal membership was approximately 6,700 with more than half living on reservation.

The Flathead bands reportedly settled on the Great Plains after acquiring the horse in the 1700s, only to move back west of the Continental Divide by the beginning of the 19th century, pushed by Blackfoot and Crow hostilities (Teit 1930; Chalfant 1974h: 36). They remained Plains-oriented and were highly organized for hunts to the east. The Bitterroot Valley of western Montana in the Stevensville area became the core of their homeland (Turney-High 1937). The valley served as a primary thoroughfare to the Plains for Interior Columbia groups (Malouf 1974: 144). Hunts to the Plains varied in scope, with some wintering east of the mountains and returning home in the spring. Southern boundary of the subsistence range was generally the headwaters of the Bitterroot River with Shoshoneans further to the south, to the west the crest of the Bitterroot Range, to the east the Continental Divide, and to the north shared territories with the Pend d'Oreille (Malouf 1974: 161). Flathead population became small having been hit hard by smallpox and constant warfare with Blackfoot (Chalfant 1974c: 172).

The Pend Orielle (Upper Kalispels) homeland is east of Pend Orielle Lake in the Clark Fork River country of Montana up to Plains, Montana and northeast to Flathead Lake, and up the Flathead River to St. Ignacious and St. Regis (Malouf 1974: 120). A number of settlements were located along the Clark Fork north to Plains. Their territory extended north to Kalispel, Montana

where resources were shared with Kutenai.

The Kutenai have been characterized as a linguistic island, unrelated to any other language in North America though sharing a common culture with the Salish (Malouf 1974: 121). The Kutenai traditional territory includes much of British Columbia, and extreme northern Idaho and Montana within the Kootenay River drainage (Turney-High 1941; Chalfant 1974c: 39). The Kutenai were reportedly driven south from Canada by Blackfoot prior to 1800. The Upper Kutenai lived in the eastern portion of the territory in the area of Jennings, Kalispel and Elmo, Montana before relocating on the Flathead Reservation. The Tobacco Plains of northwest Montana was one center of settlement and activity. The more substantial settlements were in the lower and wider valley floors, around Flathead Lake and along the Kootenay River. Mountain resources were plentiful with game, berries, nuts and greens (Malouf 1974: 163). The traditional economy included tobacco growing which diminished upon missionary efforts. They journeyed to the Plains for buffalo hunts, but to a lesser degree than the Flathead. Some Lower Kutenais joined the Senijextees of eastern Washington and remained in non-treaty status before moving to the Colville Reservation (Ruby and Brown 1992: 99). Other Lower Kutenai settled in the Bonners Ferry area of Idaho. A number of Kutenais moved to Canada during the treaty period.

The subsistence range of the Confederated Tribes consists of all of western Montana including the Bitterroot mountain range and Continental Divide with intervening valleys and lakes and part of northern Idaho. The 2,240 square mile (over 1.2 million acres) Flathead Reservation was created by the 1855 Hellgate Treaty in Jocko Valley on Pend d'Oreille lands (Royce 1899: 808; Kappler 1904: 722). Over 12 million acres of western Montana and part of Idaho were ceded. Signatories to the treaty were: Flatheads; Pend d'Oreille of Horse Plains, Camas Prairie and lower end of Flathead Lake; and Kutenai from Flathead Lakes and to the northwest (Fuller 1974: 27). Initially the Flathead bands refused to leave the Bitterroot Valley, finally relenting in 1891 (Royce 1899: 858). A large portion of prime agricultural land on the reservation was alloted to tribal members in 1908. Over 90% of this land passed into non-Indian ownership in the ensuing years. As of 1970 the reservation had been reduced to 618,000 acres of which over 567,000 acres were in tribal ownership (Ruby and Brown 1992: 37).

Due to the Kettle Falls obstacle, the Flathead region lacks salmon (as well as steelhead, lamprey, sturgeon, and char), though some groups travel to the headwaters of the Clearwater drainage for salmon and steelhead (Teit 1930: 349). Primary fish of importance were whitefish and several types of trout. Flathead Lake serves as the primary source for whitefish, available throughout the year. Mountain trout are found in most mountain lakes and streams of the region. Squawfish and suckers served a secondary importance. The rugged mountainous area along the continental divide was the hunting territory of several groups from both sides of the divide (Malouf 1974: 120). The region was relatively rich in large game: moose, elk, deer, caribou, antelope, bear and cougars, with deer being most important (Malouf 1974: 139). Buffalo west of the continental divide did not live in large herds, as on the plains, but roamed alone or in small groups. Buffalo east of the divide were a crucial component of the traditional economy until 1880 when their numbers declined. Loss of the buffalo economy forced greater reliance on native resources west of the mountains. Due to relatively small surpluses of traditional foods,

unlike areas further west, no extensive trade network system existed in western Montana (Malouf 1974: 175). However, Flathead Lake was one area that attracted groups from a distance around with abundant game, fish, plants, and good grazing (Teit 1930: 341).

The discovery of gold, plus the occurrence of rich valley soils, in the region in 1852 began attracting non-Indians in increasing numbers (Phillips 1974: 301). However, western Montana was one of the last areas of the United States settled by non-Indians. Thus, the Pend d'Oreille with their homeland centered around the St. Ignacious mission were able to practice their traditional economies until very late. Similarly, Kutenai remained relatively unaffected until the 1880s with non-Indian population expanding in the 1890s with completion of the Great Northern Railway into the area. Agricultural plowing and cattle grazing then greatly disrupted access to traditional foods.

In 1928, the Montana Power Company leased lands from the Confederated Salish and Kootenai Tribes for construction of Kerr Dam on the Flathead River. This project has been very economically lucrative for the tribes subsequently. Most bottom agricultural lands on the reservation are owned by non-tribal members, while most of tribal lands are in timber country. The majority of approximately 322,000 acres of timberland is classified as commercial forests. As part of this timber related economy, the tribes operate a post and pole business with an annual revenue of $1.4 million in 1988. Also, a sawmill geared toward small diameter trees began operation in 1988. Timber revenues have averaged about $3 million annually. Therefore, in addition to payments from Kerr Dam, the tribes receive considerable funding from timber receipts.

Several monetary settlement claims were awarded in the 1970s, for lands ceded by the 1855 treaty, for mismanagement of funds by the United States, and for lands allotted to government and homesteaders (Ruby and Brown 1992: 39). The tribes also own a tourist resort at Blue Bay on Flathead Lake. Like many of the other tribes, the Flathead Confederated Tribes have mounted an aggressive buy-back program to regain lost lands, such as those from the allotment period. The tribes now own 578,000 acres.

With this economic foundation the tribes now are involved in large and small hydroelectric generating facilities and minerals exploration. S & K Electronics, Inc., was chartered in 1985 and builds electronic products for government and industry. The tribes are trying to optimize economic returns with agricultural and commercial properties and assessing the recreational potential of the reservation. The tribes have built and maintain a community college and construction trades training program.

Like several tribes, they own and operate enterprises, administrative systems, management systems, a court system, police and wildlife enforcement departments, and other organizational entities. In 1976 separate cultural committees were established (one for Kootenai and the other for the Salish tribes) to address heritage issues. The tribes have recognized that their reservation lands, much still relatively undisturbed, offers extensive recreational opportunities. They have established the Mission Mountain Tribal Wilderness area, the first by a tribal government. A

cultural center, Sqelix 'u Aqlsmaknik, is due to open in 1994.

Shoshoni-Bannock Tribes of the Fort Hall Reservation

The Northern Shoshoni, commonly referred to as Snakes and confused with Bannock in historic contact period times (see Steward 1938: 264), reside in much of the upper Columbia River drainage. They differ significantly from Western Shoshoni of Nevada, who did not share Plains-like cultural traits, and from Eastern Shoshoni of Wyoming by the importance of salmon fishing to the Northern Shoshoni diet (Lowie 1909; Steward 1938: 238; Murphy and Murphy 1986: 284). The Shoshoni as a whole occupied vast portions of the montane, intermontane, and plains areas and then, prior to non-Indian intrusions, constricted their area to a still vast mountain and intermontaine territory (Steward 1938: 263). By the mid-1800s, mounted Shoshoni Bannock bands developed a loose tribal organization and land-owning complex (Murphy and Murphy 1960, 1986; Stewart 1970; Walker 1993a).

In anthropological literature, Northern Shoshoni settlement has been ascribed to the southern tributaries of the Salmon River in the Sawtooth Mountains, the Lemhi River, and the Middle and East forks of the Salmon River and the upper Boise, Payette and Weiser rivers (Steward 1938: 188; Walker 1978: 71; Walker 1993b). Settlement of Shoshoni and Northern Paiute was interspersed in the lower Payette and Weiser river valleys. The Northern Shoshoni of Idaho were composed of several branches.

A not well defined western branch occupied much of southern Idaho along the Boise, Payette, Weiser, and Bruneau rivers where salmon, cultural plants and pasturage was plentiful (Steward 1938: 172). The subsistence range extended into the Blue Mountains of northeast Oregon. The more sedentary fisherman of the Boise and Bruneau groups signed non-ratified treaties in 1864 and 1866, respectively (Ruby and Brown 1992: 198). After signing the 1868 Fort Bridger Treaty, they both moved to the Fort Hall Reservation in 1869 (Royce 1899: 850; Kappler 1904: 1020). The core homeland area included the Snake River plains and mountains to the north. Weiser Shoshoni and Paiutes refused to move to the Malheur Reservation, eventually moving to the Fort Hall and Duck Valley reservations.

The Mountain branch lived in central Idaho and included the Lemhi and Sheepeater bands (Hoebel 1938: 410; Steward 1938: 186). A Lemhi Treaty was negotiated and signed September 24, 1868, but never ratified. The 64,000 acre Lemhi Reservation was created by executive order in 1875 but was terminated by 1880 (Royce 1899: 878, 898). Many of the Shoshoni and some Bannocks who had joined them moved to Fort Hall in 1882 and 1907. The Pohogwes (or Fort Hall) Shoshoni was the mounted, buffalo hunting branch of Northern Shoshoni, ranging from the Wind River Range of Wyoming to Salmon Falls of the Snake River in Idaho (Steward 1938: 198).

The Bannock are a mounted branch of Northern Paiute who moved from southeast Oregon to east of the Snake River with the withdrawal of buffalo from eastern Oregon (Blyth 1938: 405;

Madsen 1958). The Bannock composed the equestrian elite of the Shoshoni-Bannock peoples, like the Cayuse among the Umatilla and Wallapum (Walker 1993a: 146). With the horse, their territory included southern Montana and western Wyoming (Steward 1938: 201). Though the Bannock maintained a distinct language dialect from the Shoshoni, they became culturally similar. They first negotiated a treaty with the United States in 1863 at Soda Springs, Idaho which was never ratified. They then negotiated a second treaty in 1868 at Fort Bridger. Though they had negotiated a reservation in the Portneuf River region of their own territory in southeastern Idaho, an 1869 executive order assigned them to the Fort Hall Reservation (Royce 1899: 850). Grievances over government imposed restrictions on traditional economic activities led to the Bannock-Paiute War of 1878.

Unlike the Columbia Plateau area, where a number of ethnic groups were in distinct geographical clusters, few cultural "boundaries" are present between the various Shoshonean (including Northern Paiute and Bannock) groups. Northern Paiute predominantly used the vast region of southeast Oregon and a small part of southwest Idaho, and Shoshoni-Bannock's subsistence region was predominantly southern Idaho and western Wyoming within the project area. Consequently, ancestral distinctiveness of present day organizations are very confused in the historical record. The various bands were highly mobile and intermarriage has been pronounced. Pronounced interchangeability of members has been characteristic of these very open Indian communities in the area (Murphy and Murphy 1986: 284). There are few barriers to communication and interaction.

The subsistence economy of the region has been diverse. Buffalo were hunted on the Snake River Plain of southern Idaho until about 1840 (Murphy and Murphy 1986: 285). The Snake River was the focus of the Shoshoni-Bannock population, providing fish in the streams, camas on its plains, pasturelands in upper reaches, and good winter habitation locations in the bottoms (Murphy and Murphy 1986: 286). Salmon was available below Shoshone Falls on the Snake River and trout, perch and other fish were found throughout their territory. Grasses and edible roots were more abundant in the higher elevations to the east of the region. Though not as abundant as in the lower Columbia River system, salmon still played an essential dietary and cultural role. Though camas was abundant at Camas Prairie south of the Sawtooth Range and was the chief root food for many interior Columbia groups, Shoshone-Bannock use of the area for digging camas is not well known (Statham 1982: 3; Murphy and Murphy 1986: 285). Pine nuts were collected in the Grouse Creek Mountains of northwestern Utah.

The 1.8 million acre Fort Hall Reservation was established by executive order the previous year in 1867 (Royce 1899: 846). The Fort Bridger Treaty of 1868 located Shoshoni and Bannock on the same reserve (Murphy and Murphy 1986: 302). In 1869 they were joined by Bannock and in 1907 by the Lemhi Bannocks and Shoshoni upon disolution of the Lemhi Reservation of eastern Idaho (Royce 1899: 898). The 1.8 million acre reservation was reduced to 524,000 acres by the 1950s.

Most Northern Shoshoni and Bannock are associated today with the Ft. Hall Reservation, with a small number on the Duck Valley Reservation residing with the Western Shoshoni and

Northern Paiute and others with the Northwest Band of Shoshoni. In 1995, 3,761 persons were enrolled tribal members.

The Shoshoni-Bannock Tribes income derives from leases and mineral rights and some agriculture. The tribes developed 30,000 acre of irrigated farmland in the 1930s. A major settlement for ceded lands was awarded in 1968. Like most groups, the Northern Shoshoni and Bannock "are assiduously defensive against outside threats to their economic, political, and cultural autonomy, a stance that bodes well for tribal persistence" (Murphy and Murphy 1986: 304). In 1992 Ruby and Brown (1992: 195) reported tribal industries of a trading post, construction enterprise, a 1,500 acre farm and agricultural enterprise, an open-pit phosphate mine operating on the reservation, and the 20,000 acre Fort Hall Irrigation Project. In 1991 the tribes negotiated the Fort Hall Water Rights Agreement with the State of Idaho and private parties concerning Snake River water rights.

Shoshoni-Paiute of the Duck Valley Reservation

A 1863 Fort Bridger Treaty with the Western Shoshone ceded an expansive, but poorly defined territory. It also prescribed establishment of future reservations by executive order. The Duck Valley Reservation, located on the Idaho-Nevada stateline in a remote and isolated high desert valley, was subsequently established in 1877 by executive order for several Western Shoshoni bands who traditionally lived along the Owyhee River of southeast Oregon and southwest Idaho and the Humboldt River of northeast Nevada (Royce 1899: 885; Harris 1938: 407). Later they were joined by Paiute from the lower Weiser country of Idaho and independent Northern Paiutes from Fort McDermitt, Camp Harney, and Quinn River areas and from the Owyhee region of southwest Idaho, settled on the reservation to take up farming and ranching (McKinney 1983). The reservation was expanded on the north side by executive order in 1886 to a half-million acres to include a Northern Paiute group who had arrived in 1884 released from the Yakama Reservation (Ruby and Brown 1992: 158). Subsequent efforts to terminate the reservation and remove inhabitants to Fort Hall were successfully resisted. This was also a closed reservation thus never being subject to allotment in severalty.

Today all reservation lands are tribal properties and contiguous in a nearly square block. The tribe adopted a constitution in 1936 in conformance with the Indian Reorganization Act. The Owyhee River is the central physiographic feature of the homeland and its waters were immediately channeled to irrigate the agricultural endeavors of the Shoshoni and Paiute efforts at farming in the later 1870s (Hart 1992). Approximately 1,700 people are members of the Duck Valley Shoshone-Paiute Tribes. The principal sources of revenue to the Duck Valley Shoshoni-Paiute is ranching and farming. Several business establishments are tribally owned. Construction of the Wildhorse Reservoir at the headwater of the Owyhee River in 1936-37 for the benefit of the Shoshoni-Paiute Tribes provides irrigation water for their agricultural projects. By the 1960s approximately 11,000 acres of land was in agricultural production. Expansion of the dam occurred in 1969. Since the 1970s the Shoshoni-Paiute have been contesting for resolution of first right water appropriations from the reservoir pool and attempting to acquire Wildhorse

Reservoir to guarantee adequate water supplies for recreational and farm development (Hart 1992). A total of 61,000 acres are potentially irrigable. About 260,000 acres are used for cattle grazing. At present, business establishments of the reservation include a motel, laundromat, general store, cafe, and service station. The main source of income is the selling of permits to fishermen at the two reservoirs. Business leases, land leases, and grazing permits also provide income to the tribe.

Spokane Tribe

The term "Spokane" is a native term originating from a name for a single settlement location that served as an important fishing location and applied by early non-Indians to most inhabitants of the river basin (Ray 1936: 122). The Spokane drainage was considered as one of the more populous areas during earliest historical contact (Chalfant 1974b: 69). Traditionally, the Spokanes lived along the Spokane River from its mouth at the Columbia River upstream to the area between Spokane Falls and Coeur d'Alene Lake near the Washington/Idaho stateline. Settlements were also along the Little Spokane River and lower parts of Latah and Chamokane creeks (Ray 1936: 122; Anastacio 1974: 143).

The subsistence region to the south and north fades into subsistence areas of other ethnic groups, such as Kalispel, Colville, Nez Perce, and Palus. The Spokane were settled in three groups: Upper bands from Spokane Falls east to the Idaho/Washington border; Middle bands west from the mouth of the Little Spokane River to Spokane Falls; and, the Lower downstream toward the confluence of the Spokane River with the Columbia River (Ray 1936: 121). A small settlement was located at the mouth of the Spokane River with the largest settlement being at the Forks, at present day Spokane townsite (Ray 1936: 134). The only major Spokane settlement away from a main waterway was Wellpinit, where current tribal offices are located.

The subsistence region of the Spokanes was large, ranging from the Sanpoil River to the west to the Bitterroot Mountains to the east, south to the Snake River, and north to the primary mountain divide with the Colvilles (Chalfant 1974b: 40). The Spokanes maintained a strong reliance on salmon from the Spokane and Columbia rivers, particularly along the Spokane River from the mouth to Spokane Falls and lower Little Spokane River. Major fisheries on the Spokane River included a location several miles above its mouth, a few miles downstream below Little Falls, at the confluence of the Spokane and Little Spokane rivers, Spokane Falls at the town of Spokane, south of Hilyard, and on Little Spokane River near Deadman Creek, just above the mouth of Latah Creek and on Latah Creek near Rock Creek (Ray 1936: 136). The Spokane River sites were shared with Sanpoil, Nespelem, Colville, Kalispel, Palus and Coeur d'Alenes (Ray 1936: 135). The forks location of Spokane River and Little Spokane River in particular served as a trading and fishing center visited by many Plateau groups (Ray 1936: 135). The Spokane also travelled to the Kettle Falls fishery and the mouth of Sanpoil River for inter-tribal fishing. The Spokanes, Coeur d'Alene, Pend d'Oreille, and Nez Perce met often to hunt and fish together.

The vast, arid open plain south of the Spokane River was shared with Nez Perce for major root gathering activities and up Latah Creek shared with Coeur d'Alenes. The area is a dry, stony undulating plain with many small lakes supporting ducks and geese, elk, sheep, camas, and other plants (Chalfant 1974b: 41). Antelope were hunted to the west on the plains south of the Columbia River in the Grand Coulee area. Important camas fields were located east of Chamokane Creek on the Spokane River and near the Davenport, Spangle and Cheney, Washington and Moscow, Idaho vicinities, and Kalispel's Cusick and Nez Perce's Weippe camas fields also shared with other eastern Plateau Salish (Chalfant 1974b: 47). Like the root grounds to the south, game and berries in the hills to the north were shared by the various politically autonomous groups of Spokanes.

Three years after the Northwest Trade Co. entered the Spokane area, the Spokane House was established at the forks of the Spokane and Little Spokane rivers in 1810 (Anastasio 1974: 144). Fort Spokane was built the following year by the Pacific Fur Company near Spokane House, to be abandoned in 1826 in favor of Fort Colville at Kettle Falls. Fur trade reoriented the Spokane economy and hunting patterns, with trading posts at Fort Colville and Spokane House becoming the foci of trade and settlements (Chalfant 1974b: 107). Spokane farms were established in Spokane Valley possibly as early as 1835, growing wheat as an agricultural economy grew. The 1852-3 smallpox epidemic struck Washington and Idaho groups, with the Spokane most severely affected of all eastern Salish, losing entire groups (Teit 1930).

Still, significant non-Indian settlement was relatively late. Initially, a large tract of land was set aside in 1872, bounded by the Columbia River on the west, the Pend d'Oreille River on the east and Spokane/Little Spokane rivers on the south for all non-treaty groups of northeastern Washington (Royce 1899: 858). It was shortly after revoked in response to pressures from non-Indian settlers in the area and a new reservation established, the Colville Reservation, bounded by the Columbia and Okanogan rivers and the 49th parallel. The Spokane and Coeur d'Alene refused to relocate to the new reservation, and the United States agreed that groups not already located on the newly established reservation could remain where they were for the time being (Chalfant 1974b: 73). As of 1874, Spokane settlements with small operating farms were still located along the river course. Following establishment of a Coeur d'Alene Reservation in Idaho in 1873, a 133,000 acre Spokane Reservation bounded by the Columbia and Spokane rivers was established by executive order, primarily for the Lower Spokanes in 1881 (Royce 1899: 902). The Middle and Upper Spokanes agreed in 1887 to move to the Coeur d'Alene and Flathead reservations (Ruby and Brown 1992: 218). A distinction between Upper Spokane and Lower/Middle Spokane influencing their current distribution was through their association with missionaries. The former were associated with Catholic missions, the latter Protestant (Chalfant 1974b: 75).

The Spokane Tribe received a monetary settlement for ceded lands. Revenues were received from the sales of uranium ore from the Sherwood and Midnight mines. Now clean-up and rehab of mining sites is a major economic activity. Logging, stock raising and farming also provide revenue (Ruby and Brown 1992: 219). The tribe established the Timber Products Enterprise, the first reservation casino in the State of Washington, a $2.5 million salmon hatchery,

and in 1977 the Alex Sherwood Memorial Center for cultural heritage preservation. Spokane tribal membership in 1995 was 2,121.

Confederated Tribes of the Umatilla Indian Reservation

The Umatilla Indian Reservation was created by the 1855 Walla Walla Treaty between the U.S. Government and the Cayuse, Umatilla and Wallapum peoples (Royce 1899: 804; Kappler 1904: 694). The tribes ceded over 4 million acres in northeast Oregon and southeast Washington. Some Nez Perce also moved onto the reservation early on, in addition to a few Northern Paiutes later in the 1800s. Though a degree of separateness was maintained to begin with, the merging of Cayuses, Umatillas, Wallawallas, Northern Paiute and Nez Perces on the reservation has continued through this century. Tribal membership in 1989 was 1,652. Typically, the original 157,000 acre reservation has been steadily reduced to 95,273 acres by 1969, of which only 15,438 remained tribally owned at that time (Ruby and Brown 1992: 53). As of 1995, the Umatilla membership includes 1,529 persons and the reservation includes 157,982 acres.

The three principal ethnic groups composing the Confederated Tribes have traditional homelands and subsistence region in various parts of the interior Columbia basin and northern fringe of the Great Basin. These groups are further described below.

The term "Umatilla" is derived from native name for a key subsistence location on the north bank of the Columbia River just below McNary Dam where annual salmon fishing was conducted (Ray 1936: 150). The Umatilla bands' original core homeland where settlements were primarily located includes both banks of the Columbia River from near the Gilliam/Morrow county line upstream to a few miles below the mouth of the Walla Walla River and along the lower reaches of the Umatilla River (Ray et. al 1938: 385). Fishing sites on the Columbia River extend upstream from Alderdale, Washington to the Oregon/Washington stateline, and upstream on the Umatilla River to near Echo, Oregon. All locations were shared with other groups. The summer subsistence range covered the Blue Mountains to Grande Ronde Valley, Minam River, Wallowa River Valley, Eagle Creek and Pine Creek in Baker County (all shared with Wallawallas, Cayuse and Nez Perce), Sumpter Valley shared with Cayuse, and the various forks of the John Day River above Monument, Oregon (Ray et. al 1938: 387). The subsistence range also extends outside the Columbia River basin south to the Silvies River just south of Seneca, Oregon, and along Poison Creek east of the Silvies and headwaters of the Malheur River. All of these latter areas were shared with Cayuse, Tenino and Paiute peoples. The head of the Silvies and Malheur river drainages are important not only due to the plentiful summer resources, but serving as places for trading and social activities as well (Suphan 1974a: 134). Camps and villages on the lower stretch of the Columbia were shared with Tenino, now of the Warm Springs confederation.

The Cayuse earlier lived in north-central Oregon, but with acquisition of horses, moved eastward, establishing a homeland and subsistence area on the upper reaches of the Walla Walla,

Umatilla, and Grande Ronde rivers in Oregon and Washington (Ray et. al 1938: 387). The traditional territory stretches westward to the John Day River. After acquisition of horses they routinely traveled eastward to the Great Plains for buffalo hunts (Ruby and Brown 1972). The Cayuse subsistence area includes the streams and rivers of the Walla Walla, Wenaha, Grande Ronde Valley, Catherine Creek, Minam River, Wallowa River including Wallowa Lake, and upper Silvies River (Ray 1936: 152). It was on Cayuse lands that the Reverend Marcus Whitman built the Waiilatpu Mission on the Walla Walla River upstream from its mouth at the Columbia River.

The Wallapums (also referred to as Wallawallas) subsistence area occurs along the Columbia River near the mouth of the Walla Walla River and upstream along the Walla Walla to the mouth of the Touchet River (Ray 1936: 103). Key fishing sites are located primarily on the east bank of the Columbia River upstream from the Oregon/Washington stateline to the Snake River and approximately 2 miles upstream on the Walla Walla River. The Snake River locations were shared with Palus and Wanapums (Suphan 1974a: 136). The more arid hills between the Walla Walla and Snake rivers were used seasonally by a number of groups. Initial non-Indian settlement occurred with establishment of Fort Nez Perce in 1818 near present Wallula. The lower Walla Walla River with first the Fort Nez Perce, followed by arrival of the Whitmans, became an early economic center of fur trading and missionary activity through the first half of the 19th century.

With the substantial loss of a land base over the past century, particularly during the allotment period, the tribes subsequently faced serious financial problems from 1968 to 1973 (CTUIR n.d.: 18). The Confederated Tribes landholdings currently occur in a checkerboard fashion (Stern and Boggs 1971). A payment award for ceded lands was made in the 1960s. An award for loss of fishery rights to Celilo Falls, inundated by The Dalles Dam, was also made (Ruby and Brown 1992: 54). By 1983, timber harvest, agriculture and grazing offered some limited revenue (Meyer 1983: 22). In the 1960s the tribes developed a proposal to construct a restaurant, motel, RV park, and service stations, but funding was not on hand. The Umatilla are currently building a $7.5 million gambling resort, the Wildhorse Gaming Resort, which opened in late 1994. The tribe hopes to add a hotel and an $11 million, 38,000 square-foot interpretive center in the next two years, with an convenience store, and youth entertainment center later. The casino is expected to provide 150 jobs in the near future, and 320 later. Gaming is considered a means to an end with revenue to be invested in land acquisitions and tribal business enterprises and also to be used for education, cultural programs, and elder care. Groundbreaking for the interpretive center is planned for summer 1995. The CTUIR Board of Trustees adopted the Tribal Water Program in 1986 committed to "using and protecting its treaty-reserved water rights and water resources." The tribes also operate the Mission Market, Tribal Farm Enterprises, Lucky Seven Trailer Court, Indian Lake and Campgrounds, and Mission Bingo (Beckham 1995).

Confederated Tribes of the Warm Springs Reservation

The Middle Oregon Treaty of 1855 was negotiated with several groups, including the

Sahaptian Teninos (Teninos, Tyghs, Wyams of lower Deschutes, Dockspuses of the John Day River) and Chinookan Wascos (Royce 1899: 808; Kappler 1904: 714). These various groups ceded some 10 million acres in north central Oregon (French 1961; Murdock 1938, 1980; Spier and Sapir 1930; Suphan 1974b). Northern Paiutes were added to the reservation in 1879 after the Bannock-Paiute War of 1878 and more in 1884 after release of some Paiute from the Yakama Reservation. The three principal ethnic groups composing the Confederated Tribes today are the Teninos, Wascos, and Northern Paiutes. The Warm Springs tribes were perhaps least affected by the allotment period, able to keep their reservation largely intact to present day. As of 1995, the Warm Springs enrollment included 3,468 persons and and the reservation contained 641,035 acres.

Like a number of other "tribe" names, the term "Tenino" was derived from a native name for a single settlement location on the Columbia River and applied to several groups of Sahaptian speakers in the vicinity who spoke the Wyampam dialect (Murdock 1980: 129). The Teninos were located on the south side of the Columbia River in the Deschutes and John Day river areas including Five Mile Rapids, Celilo Falls area, and Tygh Valley (Ray 1936: 150). The subsistence region extended to fisheries on the Metolius, and root, berry and nut grounds at Black Butte and the Three Sisters area though the region south of the Mutton Mountains was primarily under control of Shoshonean peoples (Murdock 1980: 398). Root grounds at Shaniko were also shared with Paiute (Murdock 1980: 135). Tenino subsistence region extended upstream on the Columbia River as far as the north bank opposite the mouth of the Umatilla River, thus sharing areas with the Umatilla. Settlements and subsistence areas apparently extended only a short distance up the John Day River, perhaps to Clarno, with Paiute predomninate use upstream (Murdock 1938: 397). Primary settlements were usually located several miles distant from the Columbia River where water, fuel, and shelter from winds were available (Murdock 1938: 396). Some John Day River Tenino stayed in the Clarno area as late as 1878 before moving to the Warm Springs Reservation.

Like other groups in the interior Columbia basin, the Tenino traditional economy included a wide range of fish, roots, berries, nuts and game (Murdock 1980: 131). Typically in the northern intermontane region, important root foods are frequently found on dry rocky soiled open hillsides and berries along mountain slopes and river courses. Key fisheries were Celilo Falls, Five Mile Rapids on the Columbia, the mouths of the Deschutes and John Day rivers, and the Sherar's Bridge location 30 miles upstream on the Deschutes River. The "long narrows" in The Dalles area was "the great emporium or mart on the Columbia" being the greatest gathering place of all in the interior Columbia basin (Suphan 1974b: 25).

The Wascos were also settled on the south bank of the Columbia River, downstream of the Teninos, from The Dalles area westward through the Hood River country to the noted cascades of the river (Spier and Sapir 1930). Despite distinct linguistic differences, the Wasco and Tenino shared a common culture, intermarriage, and common usage of fishing sites. Wasco fishing sites along the Columbia, lower Hood River and Wind River were shared with Wishram, Sahaptian peoples, and Klickitat. An Upper Chinookan peoples, they held considerable economic power due to the occurrence of major Columbia fisheries in their homeland and their geographic proximity to lower Chinookan settlements. Significant commercial use of several salmon species

was a hallmark of the peoples. The Tenino and Wasco homeland was the most important locus of aboriginal trade in the Pacific Northwest interior (Murdock 1980: 132). Their subsistence region extended west to the mouth of the Willamette River west of the Cascades including the fishery at Willamette Falls and the Salmon and Zigzag rivers on the west slopes of Mt. Hood north along the White Salmon River valley for camas roots and other resources (Suphan 1974b: 44). Cultural plants were gathered in the hills and along streams south of The Dalles and Mosier River valley, including Three Mile, Five Mile, Eight Mile and Fifteen Mile creeks, and Mill Creek, and on the north slopes of Mt. Hood. The southern range was estimated somewhere between Dufur, Oregon on Fifteen Mile Creek and Tygh Valley (Suphan 1974b: 50). Much of this area was shared with the Tenino.

With an epidemic of 1829 native life along this stretch of river became disorganized, leading to new alignments, with the Wasco reorienting themselves more upstream (Suphan 1974b: 46). An emphasis on mercantile activities continued after arrival of non-Indians as the river still serves as an important travel and transport corridor. The Wasco became signatories to the 1855 Middle Oregon Treaty with removal to the soil-poor Warm Springs Reservation greatly affecting traditional economic activities. In 1929 seven acres were set aside for a small group that refused to move to the reservation from the Celilo Falls location.

Though the Middle Oregon Treaty consisted of Wasco and Tenino the Warm Springs Reservation was established for the signees on lands primarily controlled by Shoshonean-speaking Paiute (Murdock 1980: 130). The Paiute were principal users of much of the John Day River basin above the Clarno and on the Deschutes down to the mouth of Crooked River and upstream along the Crooked River, along the Metolius River and north to the Mutton Mountains, with the west perimeter being the Cascade Mountains. This area includes the Madras and Prineville areas and east to Prairie City and Baker City (Suphan 1974b: 64). Paiute gathered roots near Shaniko, berries at Mt. Jefferson, and fishing sites down to Sherars Bridge.

In 1960 the Warm Springs used funds from their 1958 Celilo Falls settlement to purchase the on-reservation Kah-nee-ta resort. This enterprise became the foundation for other economic developments. Timber continues as the most important industry. In 1967 the tribes purchased a privately owned sawmill within the reservation and a plywood plant (Ruby and Brown 1992: 57). As a result, the Warm Springs Forest Products enterprise generated about $13 million in annual revenue in 1980 (Meyer 1983: 25). The resort lodge, which operated in the red for a number of years, began to see annual profits as of 1988. Income is also received from fees associated with hydro-electric power generation at Pelton and Round Butte Dams and production of cattle, horses and crops. The $30 million Pelton Regulating Dam hydroelectric project was dedicated in 1982. It was the first hydroelectric license issued to an Indian tribe by the Federal Energy Regulatory Commission. Other business developments include radio stations and clothing manufacture. More recently, the tribes added a $4.5 million museum. The tribe had previously completed a $5.5 million trout and salmon hatchery near Kah-Nee-Ta (Ruby and Brown 1992: 57). The tribes have recently voted to add a casino to the resort. The Confederated Tribes of the Warm Springs Reservation tribal government now manages timber, water, salmon, and other reservation resources for the benefit of its members through various departments and programs

(Moore, Willey, and Diamant 1994: 8).

Confederated Tribes and Bands of the Yakama Nation

The Yakama Reservation was established with the Yakama Treaty, signed in 1855 by 14 individual bands (Royce 1899: 806; Kappler 1904: 698). Signitory to the treaty, in addition to the Yakama bands, were the Klickitats, Palus, Wenatchee, and possibly Entiat (Ray 1975: 95). More Palus and Salish groups moved to the Colville Reservation than to Yakama, hence have never been represented by the Yakama government. Some Northern Paiutes temporarily stayed on the reservation from 1879 to the early 1880s. The Yakama were one of the most numerous Sahaptin-speaking groups (Schuster 1975). Ceded by the 1855 Treaty were 10.8 million acres (Ray 1974b). Tribal membership in 1995 is 8,435. The reservation covers over one million acres. Typically most of the better agricultural lands within the reservation were lost during the allotment period (see below). The Yakama have a long history of seeking financial settlements with the United States, with many claims focused on inaccurate boundary surveys performed by the U.S. Government.

The Yakama bands lived in the watershed of the Yakima River with a main settlement at Union Gap (Ray 1936: 146). The traditional subsistence region extends westward across the Cascades through much of southwestern Washington, northward to the Lind Coulee and Spokane River area, eastward to Palouse country, and south of the Columbia River in the Deschutes and John Day watersheds (Ubelacker 1984).

The Klickitats, involved in the 1855 Yakama Treaty signing and subsequent removal to the reservation were primarily from the upper drainage systems of the Klickitat and White Salmon rivers of south central Washington (Ray 1936: 148). Their identity has been largely lost through intermarriage with Yakama on the reservation.

On the north bank of the Columbia River, were the Chinookan-speaking Wishrams in the area of The Dalles from White Salmon River upstream to Ten Mile Rapids (Spier and Sapir 1930: 159). A primary settlement was at Spearfish (now Wishram, Washington). Their subsistence range extended away from the river to Mount Adams. Like the Wascos, the Wishrams held mercantile dominance (Spier and Sapir 1930: 164). The Wishrams largely opposed removal to reservations, though some did relocate to the Yakama Reservation in the 1860s, leaving others in the homeland.

A number of outlying coherent communities persisted after signing of the treaty, later to be severely affected by dam construction, including The Dalles Dam in 1953 and the John Day Dam in 1968. Rock Creek and Pine Creek were close independent Columbia River communities prior to dam construction. As a result some families were divided, some going to the Warm Springs Reservation, some to Yakama and others to Umatilla. The John Day River allotment is now held by Warm Springs, though culturally associated with the Rock Creek/Pine Creek peoples. These communities, including the Bickleton/Cleveland, Pine Creek, Patterson,

Roosevelt, and Rock Creek groups, retained many cultural traditions, such as maintaining use of tule mat lodges, while taking part in local non-Indian economies. Those communities further downstream on the Columbia, but still under the Yakama political "umbrella," were naturally more directly affected by non-Indian cultural pressures, such as the Lyle and White Salmon peoples. The Army Corps of Engineers established the off-reservation Rock Creek communities in Goldendale area, referred to locally as Georgeville and Billysville.

Numerous monetary settlements were awarded by the Claims Commission for inaccurate boundary surveys by U.S. surveyors through the years and for a financial mismanagement (Ruby and Brown 1992: 61). The Yakama Nation manages 613,000 acres of timberland out of 1.1 million acres of land held in trust as of 1979. This includes 482,000 acres of commercial timber and 131,000 acres of non-commercial lands. In 1979, timber revenue was $25 million. Having lost much of their agriculturally productive lands during the allotment period, the tribe received a revenue in 1979 of less than $3 million for 40 different crops, including apples, hops, asparagus, spearmint, and grapes (Meyer 1983: 26). Other revenue is gained through grazing activities. The Toppenish cultural center containing museum, restaurant, library, theater, longhouse, and tribal offices was opened in 1980 and now has an associated RV/camping part (Ruby and Brown 1992: 62). There exists a tribally owned bank, the Wapato Industrial Park, Real Yakama Fruit Stand, Production Orchards, Mt. Adams Furniture Factory, and Yakama Credit Enterprise as well (Beckham 1995).

Appendix B

Selected Legal Events

Ratified Treaties and Agreement

- Yakama Treaty signed June 9, 1855, ratified March 8, 1859 (12 STAT 951)
- Walla Walla Treaty signed June 9, 1855, ratified March 8, 1859 (12 STAT 945)
- Nez Perce signed June 11, 1855, ratified March 8, 1859 (12 STAT 957)
- Middle Oregon Treaty signed June 25, 1855, ratified March 8, 1859 (12 STAT 963)
- Hellgate (Flathead) Treaty, signed July 16, 1855, ratified March 8, 1859 (12 STAT 975)
- Blackfeet Treaty, signed October 17, 1855, ratified April 15, 1856 (11 STAT 657)
- Nez Perce Treaty, signed June 9, 1863, ratified, (14 STAT 647)
- Fort Bridger Treaty with the Eastern Shoshone, signed July 2, 1863, ratified March 7, 1864 (18 STAT 685)
- Box Elder Treaty with the Shoshone - Northwestern Bands, signed July 30, 1863, ratified March 7, 1864 (13 STAT 663)
- Fort Bridger Treaty with Western Shoshone, signed October 1, 1863, ratified, (18 STAT 689)
- Klamath Treaty signed October 14, 1864, ratified July 2, 1866 (16 STAT 707)
- Northern Paiute Walpapi Treaty signed August 12, 1865, ratified July 5, 1866 (14 Stat 683)
- Treaty with Eastern Band Shoshoni and Bannock, signed July 3, 1868, ratified February 26, 1869 (15 STAT 673)
- Nez Perce Treaty, signed August 19, 1868, ratified February 16, 1869 (15 STAT 693)
- Agreement with the Columbia and Colville, signed July 7, 1883, ratified July 4, 1884 (23 STAT 79)

Key Executive Orders

- Establishment of Fort Hall Reservation, June 14, 1867
- Establishment of Colville Reservation, July 2, 1872
- Establishment of Coeur d'Alene Reservation, November 8, 1873
- Establishment of Duck Valley Reservation, April 16, 1877
- Establishment of Spokane Reservation, January 18, 1881

Reservation and Restoration Acts

- Burns Paiute Reservation Act of October 13, 1972 (PL 92-488; 86 STAT 806)
- Klamath Indian Tribe Restoration Act of August 27, 1986 (PL 99-398; 100 STAT 849)

Court Decrees

- Charles E. Kimball (Klamath Tribe) v. John D. Callahan, Civil No. 73-155 April 29, 1981/May 13, 1981

Fig. 1. Geographic region addressed by the Interior Columbia Basin Ecosystem Management Project (highlighted by stippling).

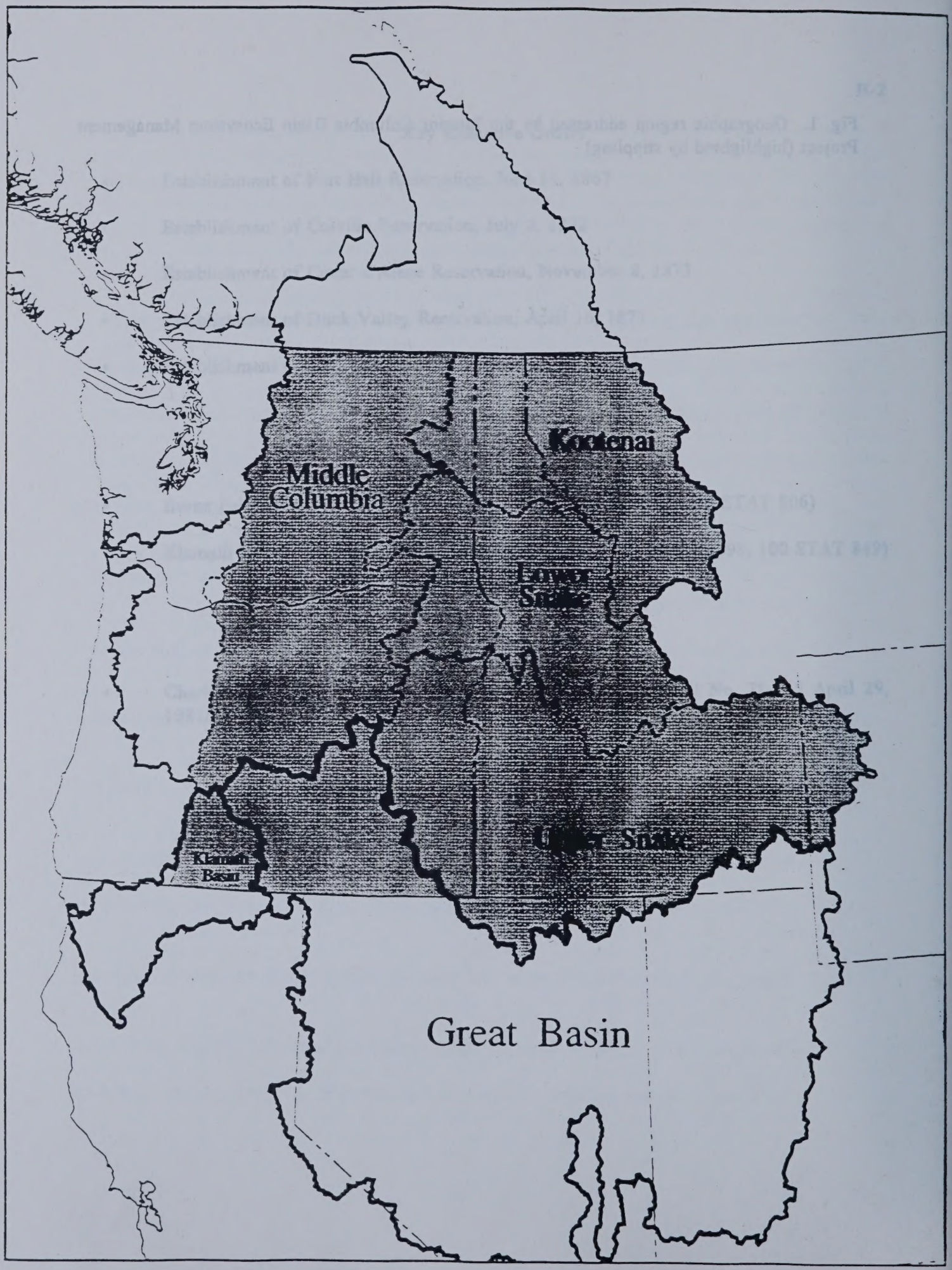

Kootenai
Middle Columbia
Lower Snake
Upper Snake
Klamath Basin
Great Basin

Fig. 2. Indian reservations of the interior Pacific Northwest potentially affected by the Interior Columbia Basin Ecosystem Management Project (from Walker 1993b: 216). Federally-recognized tribal governments within the region include the following:

1. Burns Paiute Indian Colony
2. Indians of the Coeur d'Alene Reservation
3. Confederated Tribes of the Colville Reservation
4. Fort Bidwell Paiute
5. Fort McDermitt Paiute
6. Kalispel Indian Community
7. The Klamath Tribes
8. Kootenai Tribe of Idaho
9. Nez Perce Tribe
10. Northwest Band of Shoshoni Indians
11. Confederated Salish and Kootenai Tribes of the Flathead Reservation
12. Shoshoni-Bannock Tribes of the Fort Hall Reservation
13. Shoshoni-Paiute of the Duck Valley Reservation
14. Spokane Tribe
15. Confederated Tribes of the Umatilla Indian Reservation
16. Confederated Tribes of the Warm Springs Reservation
17. Confederated Tribes and Bands of the Yakama Reservation

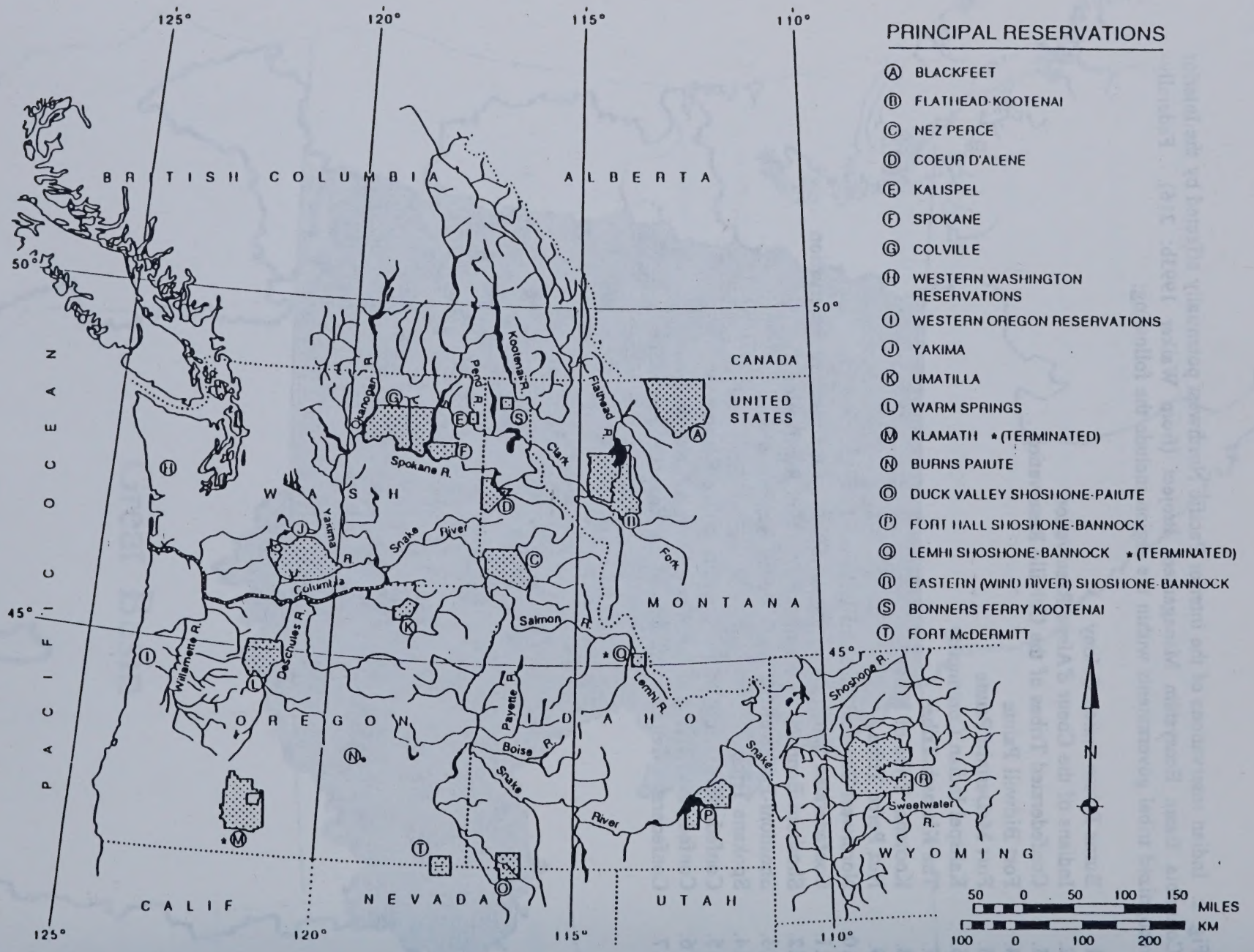
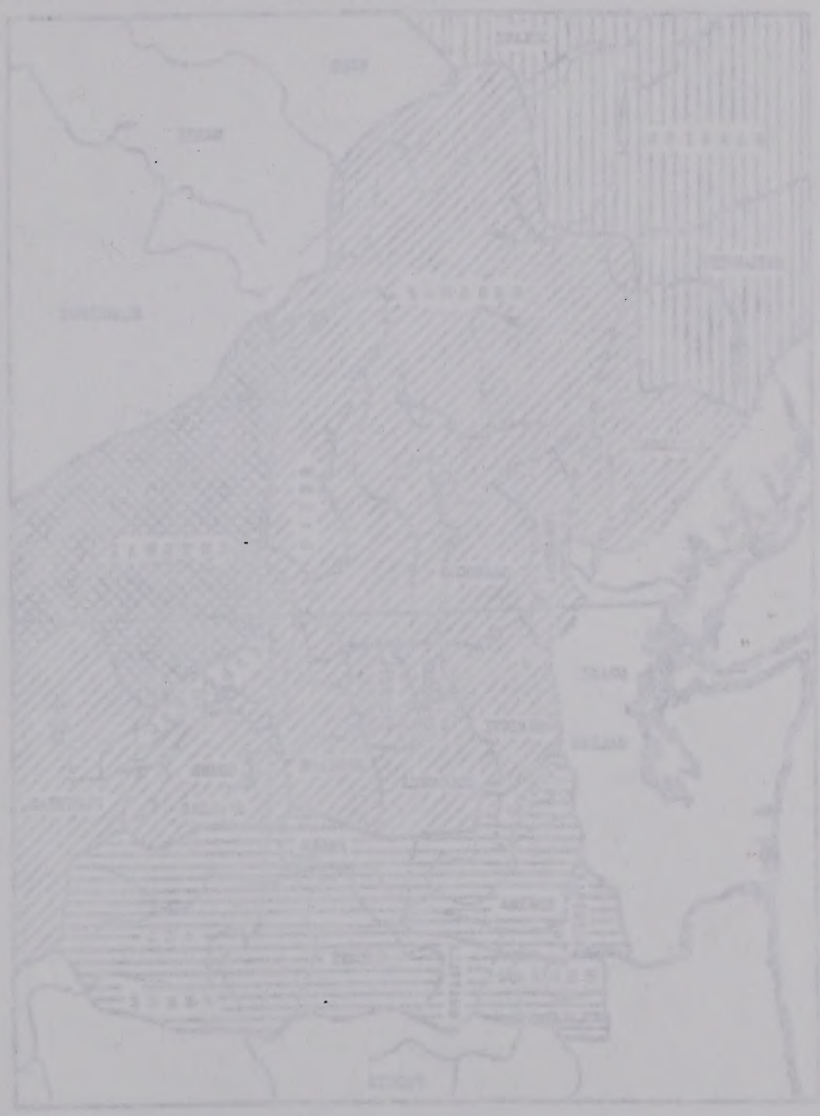
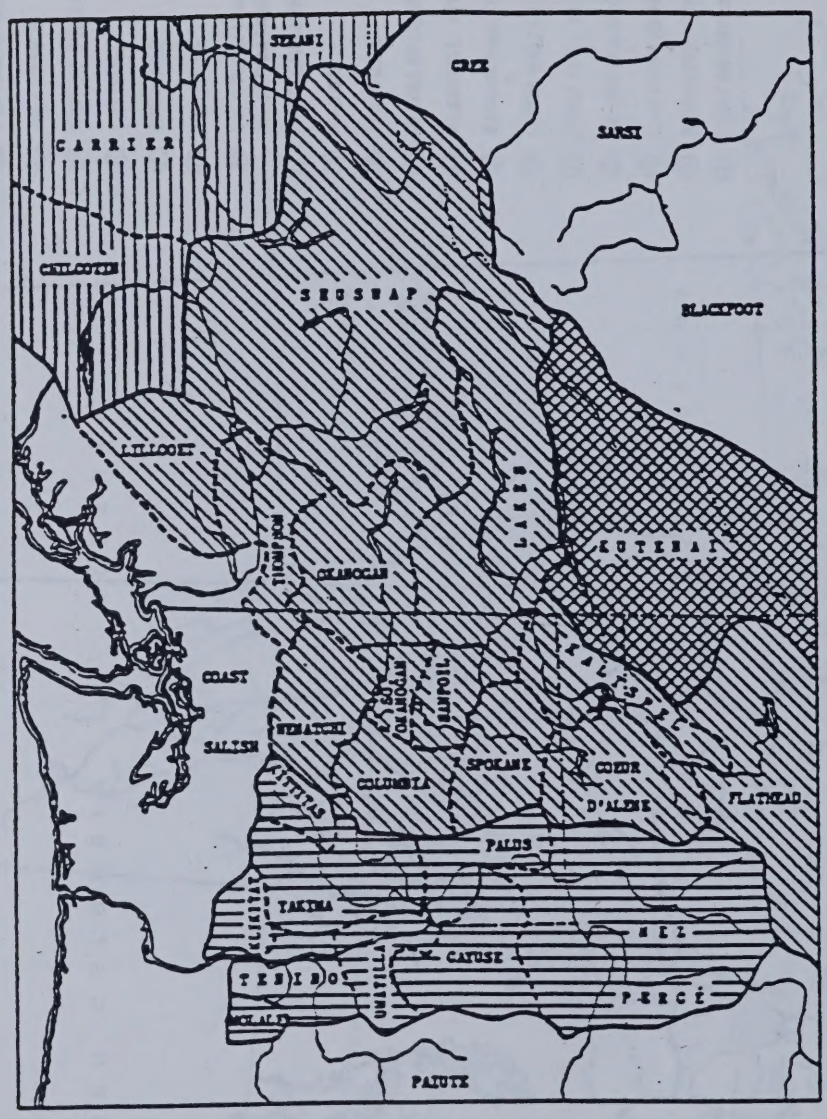

PRINCIPAL RESERVATIONS
Ⓐ BLACKFEET
Ⓑ FLATHEAD-KOOTENAI
Ⓒ NEZ PERCE
Ⓓ COEUR D'ALENE
Ⓔ KALISPEL
Ⓕ SPOKANE
Ⓖ COLVILLE
Ⓗ WESTERN WASHINGTON RESERVATIONS
Ⓘ WESTERN OREGON RESERVATIONS
Ⓙ YAKIMA
Ⓚ UMATILLA
Ⓛ WARM SPRINGS
Ⓜ KLAMATH * (TERMINATED)
Ⓝ BURNS PAIUTE
Ⓞ DUCK VALLEY SHOSHONE-PAIUTE
Ⓟ FORT HALL SHOSHONE-BANNOCK
Ⓠ LEMHI SHOSHONE-BANNOCK * (TERMINATED)
Ⓡ EASTERN (WIND RIVER) SHOSHONE-BANNOCK
Ⓢ BONNERS FERRY KOOTENAI
Ⓣ FORT McDERMITT
125°
120°
115°
110°
50°
45°
BRITISH COLUMBIA
ALBERTA
CANADA
UNITED STATES
PACIFIC OCEAN
WASH
MONTANA
OREGON
IDAHO
WYOMING
CALIF
NEVADA
UTAH
Okanogan R.
Kootenai R.
Pend R.
Clark
Flathead R.
Spokane R.
Yakima R.
Snake River
Columbia
Fork
Salmon R.
Lemhi R.
Shoshone R.
Willamette R.
Deschutes R.
Payette R.
Boise R.
Snake
River
Sweetwater R.
N
50 0 50 100 150 MILES
100 0 100 200 KM

Fig. 3. Perceived distributions of American Indian groups in the Columbia Plateau region during the early contact period (from Ray 1939).





MAP 1. Linguistic stocks in the Plateau. *Horizontal hatching:* Sahaptin; *diagonal hatching:* Salish; *vertical hatching:* Athabascan; *cross hatching:* Kutenai.

Fig. 4. Perceived distributions of American Indian groups in the Great Basin region during the early contact period (from d'Azevedo 1986).

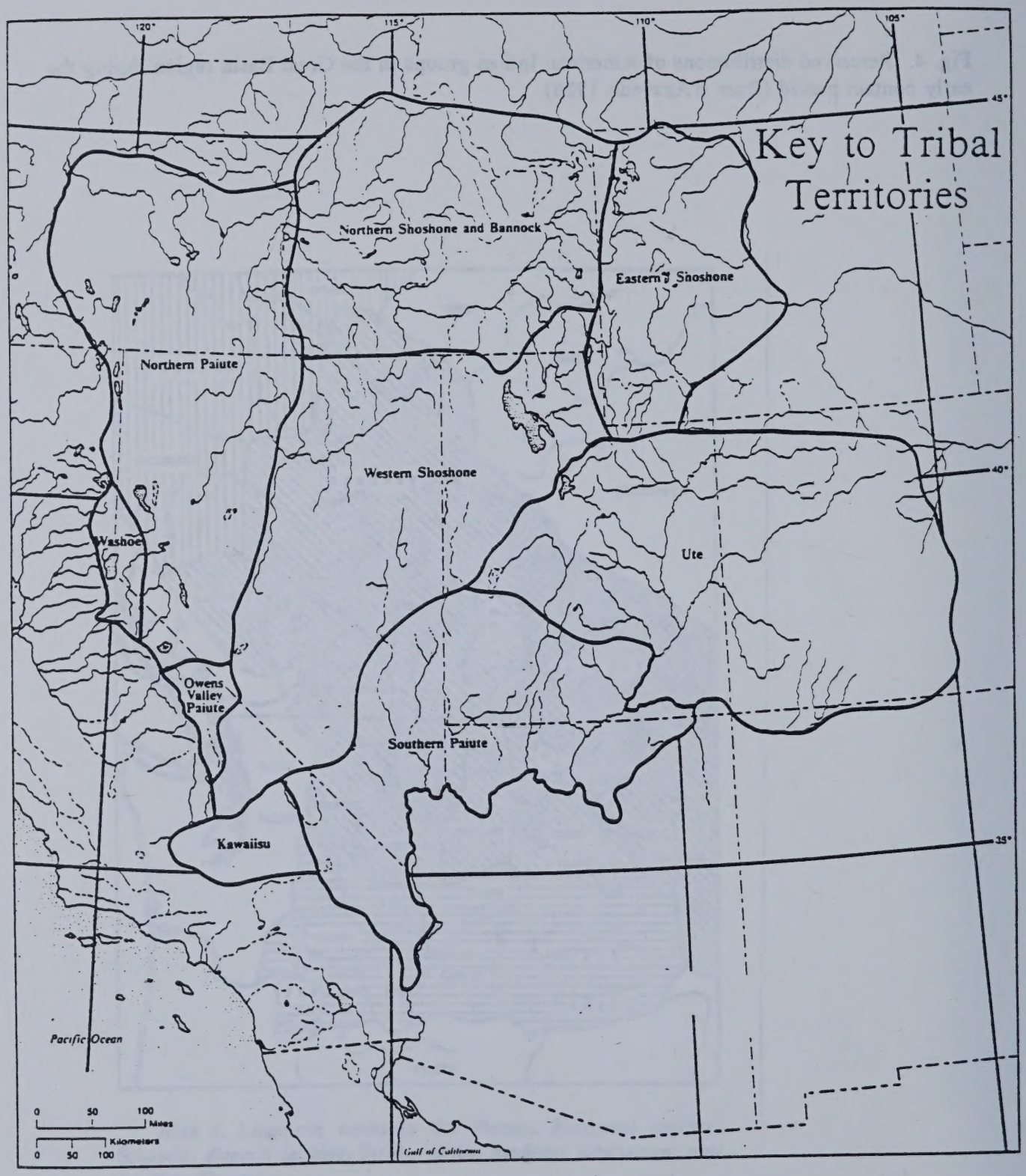

Key to Tribal Territories
120°
115°
110°
105°
45°
40°
35°
Northern Shoshone and Bannock
Eastern Shoshone
Northern Paiute
Western Shoshone
Washoe
Ute
Owens Valley Paiute
Southern Paiute
Kawaiisu
Pacific Ocean
Gulf of California
0 50 100 Miles
0 50 100 Kilometers

Fig. 5. Map showing approximation of Nez Perce and Shoshone-Bannock interest areas (from Walker 1993a).

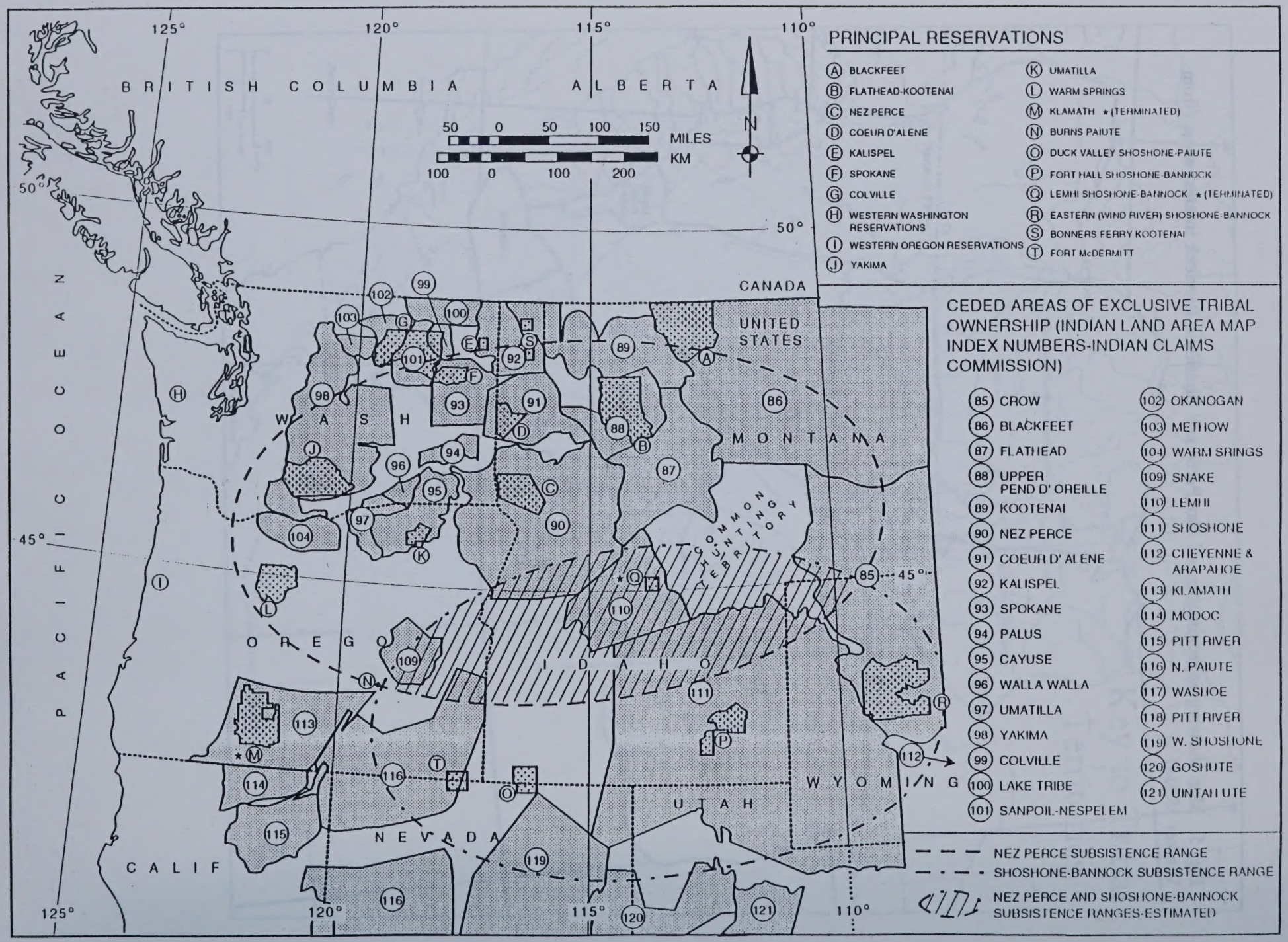
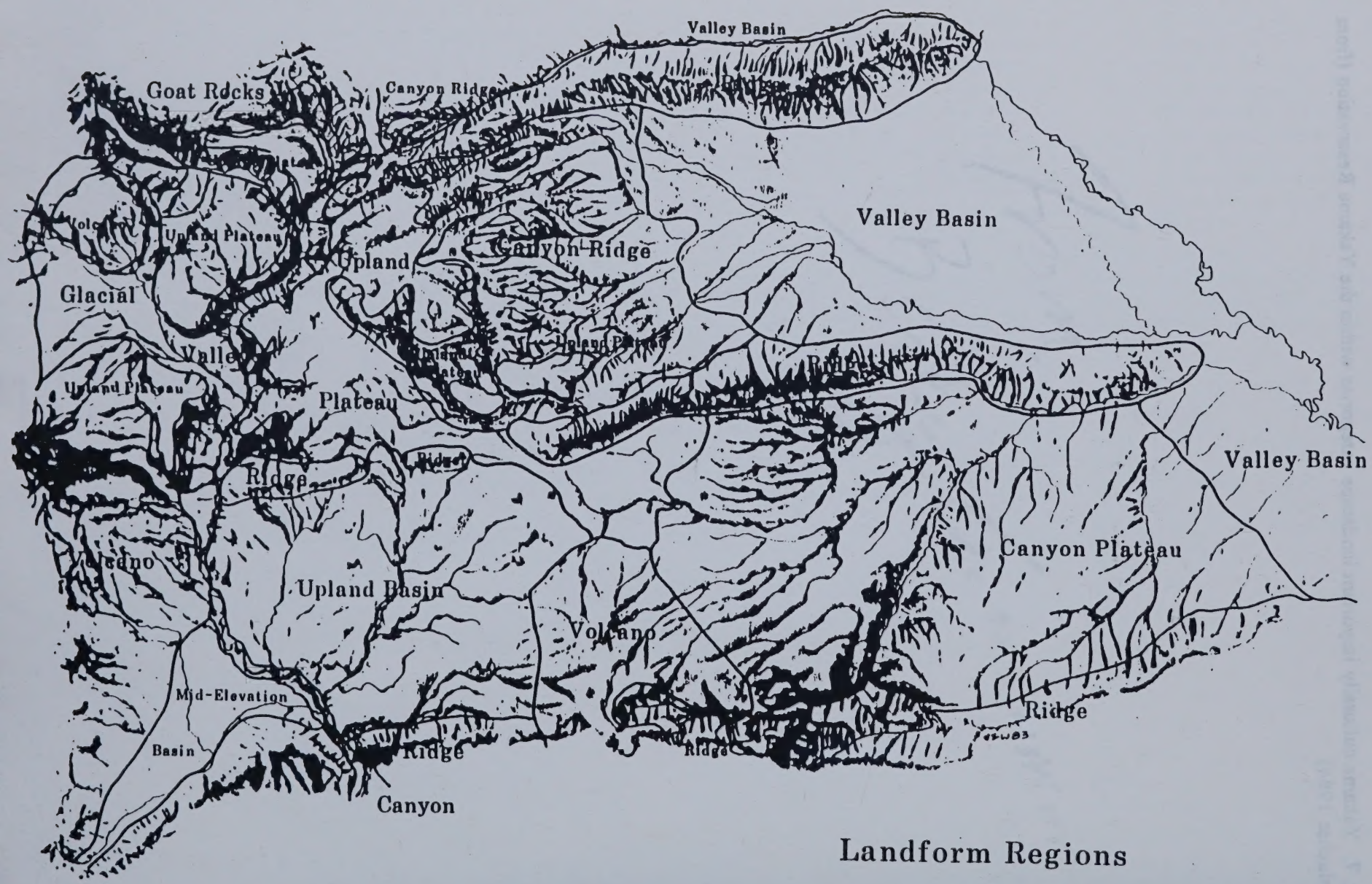

PRINCIPAL RESERVATIONS
Ⓐ BLACKFEET
Ⓑ FLATHEAD-KOOTENAI
Ⓒ NEZ PERCE
Ⓓ COEUR D'ALENE
Ⓔ KALISPEL
Ⓕ SPOKANE
Ⓖ COLVILLE
Ⓗ WESTERN WASHINGTON RESERVATIONS
Ⓘ WESTERN OREGON RESERVATIONS
Ⓙ YAKIMA
Ⓚ UMATILLA
Ⓛ WARM SPRINGS
Ⓜ KLAMATH ★(TERMINATED)
Ⓝ BURNS PAIUTE
Ⓞ DUCK VALLEY SHOSHONE-PAIUTE
Ⓟ FORT HALL SHOSHONE-BANNOCK
Ⓠ LEMHI SHOSHONE-BANNOCK ★(TERMINATED)
Ⓡ EASTERN (WIND RIVER) SHOSHONE-BANNOCK
Ⓢ BONNERS FERRY KOOTENAI
Ⓣ FORT McDERMITT
CEDED AREAS OF EXCLUSIVE TRIBAL OWNERSHIP (INDIAN LAND AREA MAP INDEX NUMBERS-INDIAN CLAIMS COMMISSION)
85 CROW
86 BLACKFEET
87 FLATHEAD
88 UPPER PEND D' OREILLE
89 KOOTENAI
90 NEZ PERCE
91 COEUR D' ALENE
92 KALISPEL
93 SPOKANE
94 PALUS
95 CAYUSE
96 WALLA WALLA
97 UMATILLA
98 YAKIMA
99 COLVILLE
100 LAKE TRIBE
101 SANPOIL-NESPELEM
102 OKANOGAN
103 METHOW
104 WARM SRINGS
109 SNAKE
110 LEMHI
111 SHOSHONE
112 CHEYENNE & ARAPAHOE
113 KLAMATH
114 MODOC
115 PITT RIVER
116 N. PAIUTE
117 WASHOE
118 PITT RIVER
119 W. SHOSHONE
120 GOSHUTE
121 UINTAH UTE
NEZ PERCE SUBSISTENCE RANGE
SHOSHONE-BANNOCK SUBSISTENCE RANGE
NEZ PERCE AND SHOSHONE-BANNOCK SUBSISTENCE RANGES-ESTIMATED
BRITISH COLUMBIA
ALBERTA
CANADA
UNITED STATES
MONTANA
WASH
OREGON
IDAHO
WYOMING
UTAH
NEVADA
CALIF
PACIFIC OCEAN
COMMON HUNTING TERRITORY
MILES
KM
N
125°
120°
115°
110°
50°
45°

Fig. 6. Ceded boundaries resulting from treaties ratified in the intermontane region.

From
Becky Grammar

Fig. 7. Yakama culturally important landscape categories within the Yakama Reservation (from Ubelacher 1984).



Landform Regions

Fig. 8. Generalized chart of the annual subsistence cycle in the Columbia Plateau (from Hunn 1991).

THE PLATEAU SEASONAL ROUND

Fig. 9. Chart of the annual subsistence cycle in the northern Great Basin (from Couture et. al 1986).

HARNEY VALLEY PAIUTE SEASONAL ROUND

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